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JUNE, 1950

Telephone and Management Engineer

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THE NATIONAL TELEPHONE MAGAZINE

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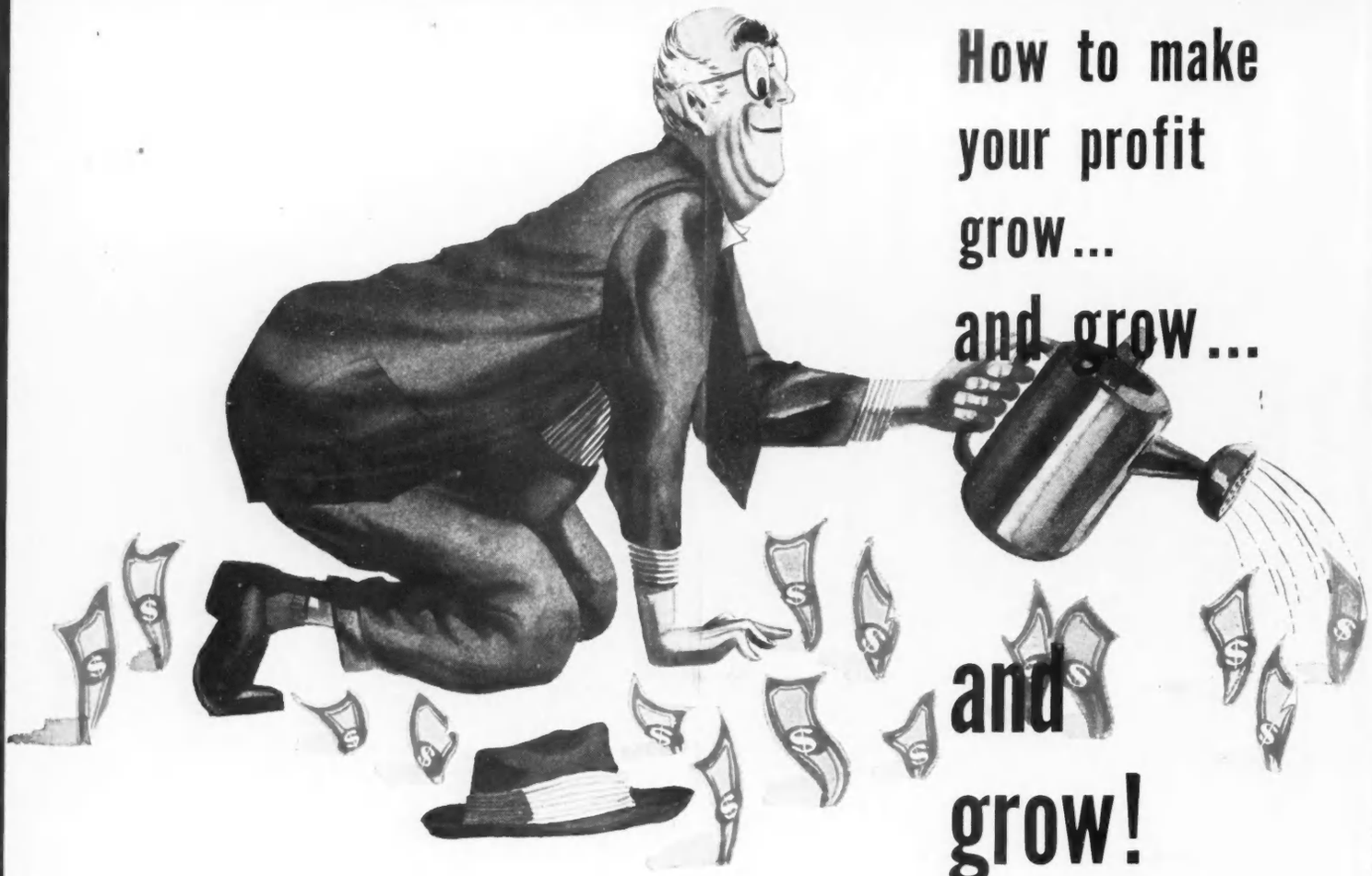
"THE MARKETS FOR NEW CAPITAL"

By Albert W. Kimber



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Across The Editor's Desk

Copies of our 1950 COMPOSITE CATALOG & BUYER'S DIRECTORY have been mailed to the telephone industry in North, South and Central America. Because of curtailment of service by the U. S. Postoffice Department in deliveries it is possible that your copy might be later reaching you than usual. Future copies of all magazines will also be delayed since the Postoffice Department has changed rules in regard to other than first class and daily newspapers.

• • •

Our Staff will appreciate any comment you might have on the book mentioned in the preceding paragraph. The Section devoted to the "Telephone Plan Book" and the Composite Catalog Section should be of much value to all Independents. The demand for copies from departments of foreign governments and our own governmental agencies caused us to raise our print order for extra copies.

• • •

To those of you that have been watching the action of stocks and bonds on the markets we urge you to carefully read the article in this issue by ALBERT W. KIMBER on "The Markets For New Capital." Mr. Kimber's articles appear exclusively in TELEPHONE ENGINEER Publications and keep you fully informed on finances and utility issues. Mr. Kimber is well known as an Investment Analyst and is very active as a consultant.

• • •

KEITH VOGT, accountant of the Nebraska State Railway Commission, heard our Editor speak at the 50th Anniversary convention of the Nebraska Telephone Association this Spring. In a talk after sessions Mr. Vogt outlined what the Nebraska Commission was doing for the smaller companies in Nebraska in the way of simplifying rate cases. His statements were so interesting we invited him to discuss their plan in an article. You will find Mr. Vogt's interesting article in the following pages.

• • •

Do you want reprints of "$125 Million Per Day?" Read it on page 20.

The National Telephone Magazine

TELEPHONE ENGINEER and MANAGEMENT

JUNE, 1950 **VOL. 54, NUMBER 6**

Editor, **RAY W. SMITH** • *Advertising Director,* **ROY F. SMITH**
Managing Editor, **JOHN G. REYNOLDS** • *Promotion Manager,* **DON C. SORENSEN**
Washington Bureau, **ROLAND C. DAVIES** *and* **FRED HENCK**
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FRONT COVER: Scene from the new Bell System marionette movie "Adventures in Telezonia" emphasizes proper telephone usage. Left to right—Handy, left, remonstrates with Party Line Piggy about monopolizing a party line. —(Courtesy Cincinnati Telephone Bulletin.)

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Lakeland Exchange of Peninsular Telephone Company, which serves the prosperous citrus-growing and industrial areas of west-central Florida.

Bank of 26-cell Exide-Manchex Batteries in Lakeland Exchange.

EXIDE-MANCHEX BATTERIES

assure positive operation of telephone equipment at Lakeland, Florida

Expansion of telephone facilities has gone fast and far at this modern exchange of the Peninsular Telephone Company. Out calls more than doubled during the past ten years. Many miles of lines and cable have been placed. Much new equipment has been added, including an Exide-Manchex (26 FHE-17) Battery, which will supply up to 4 hours of peak-load service.

The main Exide-Manchex Battery (23 cells) is floated continuously at 49.45 volts (2.15 v.p.c.). Three cells, for emergency reserve, are trickle-charged at 2.15 v.p.c.

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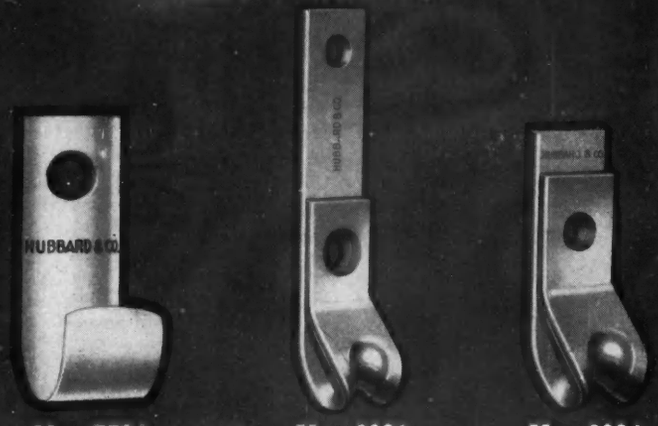

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"Today, the boy or girl who seeks part time or vacation employment, or tries to get started in a job with no experience, finds the higher minimum wage a stumbling block. Many an employer used to hire up-and-coming youngsters and start them at a beginning wage while they learned a trade or a business. Now, that is the exception rather than the rule."—*Emporia (Kansas) Gazette.*

"More than 14,000,000 Americans have laid their savings on the line to buy big and little buildings, big and little machines, to turn out literally millions of useful products. These people are shareholders, men and women who put their spare money into business and industry. These people have worked and saved, and their savings are used to build America's production."—*International Falls (Minn.) Daily Journal.*

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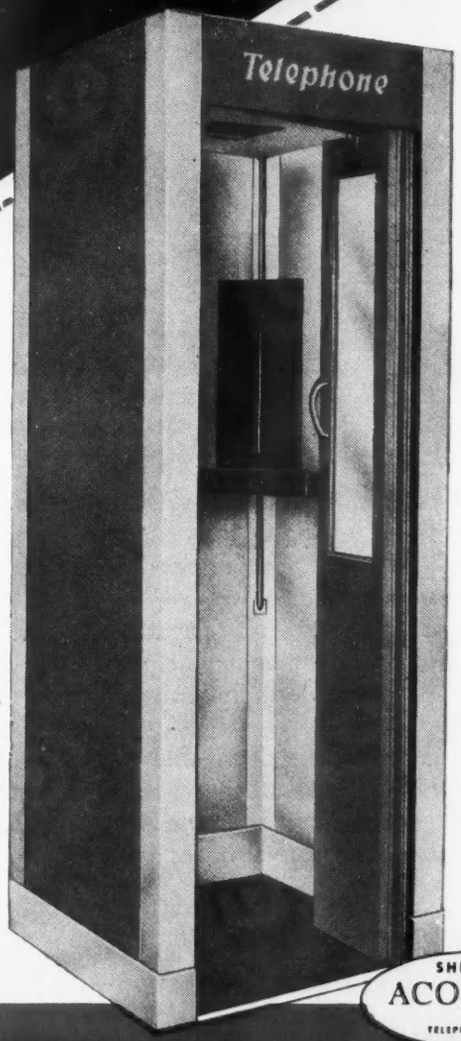

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Well in the forefront of this resurgence are Sherron acoustic steel booths. For these are the booths that are given top priority in the decisive replacement policies of the industry's leaders.

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It is not on appearance alone that Sherron booths are outstanding. Inviting attractiveness is just one of the many features for which they are distinguished. On every count — acoustic efficiency, engineered construction, precision fabrication and lifetime serviceability, Sherron booths stand alone.

There is a Sherron booth for every location...indoors, outdoors and wherever the aim is — bigger earnings.

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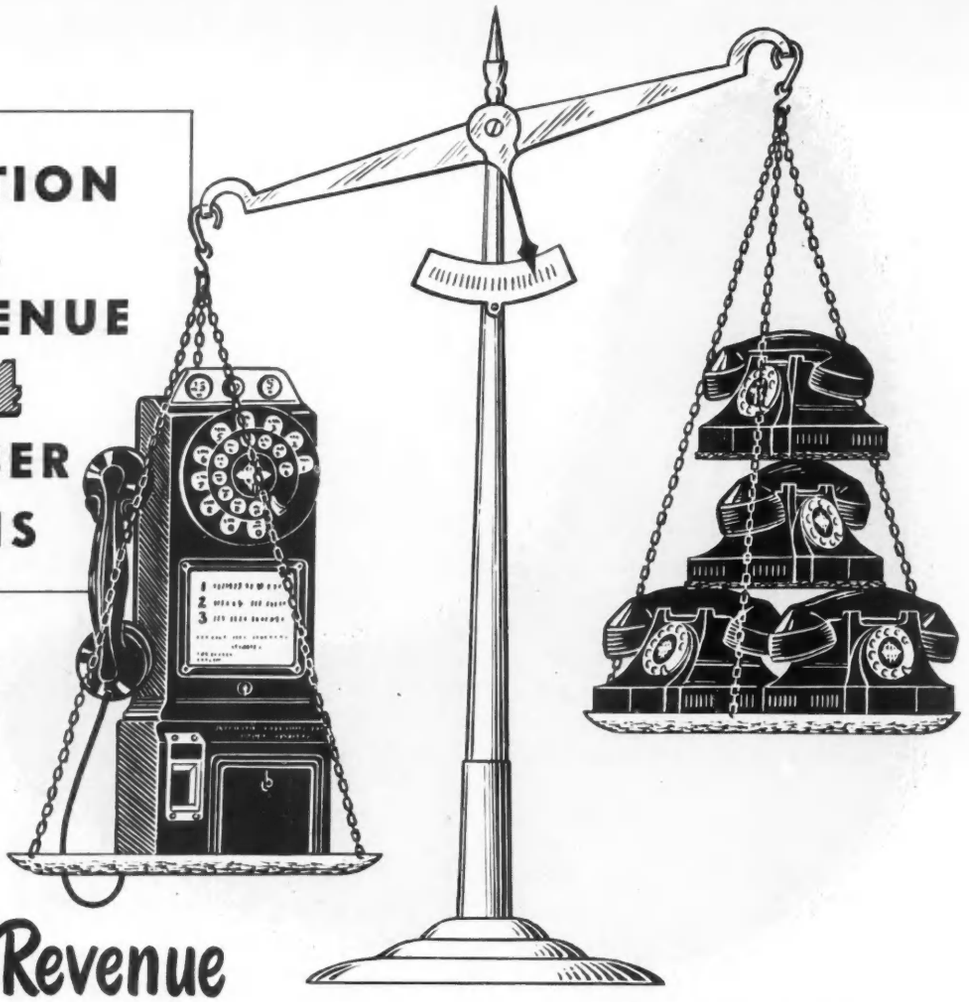

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NEWSLETTER
TELEPHONE ENGINEER

Fortnightly TELEPHONE ENGINEER ★ TELEPHONE ENGINEER AND *Management*
ON THE 1st OF EACH MONTH ON THE 15th OF EACH MONTH
NEWSLETTERS *on Alternate Weeks*

June 15, 1950

Dear Sir:

In second such action taken by National Labor Relations Board, Regional Office of NLRB for New Jersey has dismissed charge of unfair labor practices filed against New Jersey Bell Tel. Co. by Division 55 (traffic) of Communications Workers of America (CIO) on action taken by company in improving its pension plan last November. NLRB's Regional Office on May 23 ruled that at time pension plan changes were put into effect CWA Division's officers had not complied with provision of Taft-Hartley Act requiring that they sign non-communist affidavits in order to come within jurisdiction of NLRB. Union officers, have, of course, in meantime filed affidavits. Similar ruling was issued by Atlanta Regional Office of NLRB on charges filed by CWA's Southern Division against Southern Bell Tel. Co.

* * *

Ending chapter in history of U.S. telephone communications in development of long distance telephone service, American Tel. & Tel. Long Lines Department May 26 filed petitions with FCC which seek to dissolve 8 inactive corporate entities which date back more than half century & which have formed segments of Long Lines Department in various states.

Petitions would dissolve A. T. & T. corporations which had been set up as far back as June 23, 1896 in Iowa; A. T. & T. Co. of Minnesota on July 17, 1896; A. T. & T. Co. of West Virginia on Jan. 29, 1897; A. T. & T. Co. of Alabama on June 24, 1899; A. T. & T. Co. of Louisiana on May 13, 1899; Kansas Tel. & Tel. Co. on May 5, 1903; A. T. & T. Co. of Indian Territory (Okla.) on June 30, 1904; A. T. & T. Co. of Nebraska on Feb. 2, 1909.

* * *

Southern Bell Tel. & Tel. Co., which has added more than 140,000 telephones in North Carolina since 1945, while spending $51 million for improvement & expansion of its service, cannot earn enough on its operations within state to provide adequate return on growing investment without rate increases of about $2.7 million per year, company informed state Utilities Commission May 31 in petition for increased rates.

Southern Bell Manager H. G. Booth, in statement announcing rate increase petition, pointed out that today's rates are based on investment on Sept. 30, 1948, when company's investment in state averaged $234 per

telephone. But for each telephone added since that date, he noted, cost has been $354. North Carolina was first state in which Bell System company filed postwar rate increase petition, in late 1946.

* * *

Kenneth W. Spencer, who has served as member of District of Columbia Public Utilities Commission since March, was nominated by President Truman May 31 for three-year term on agency beginning July 1. Mr. Spencer has been named to fill unexpired term of former Commissioner James W. Lauderdale. Before he was named to commission, Mr. Spencer had been a member of Board of Real Estate Assessors. His confirmation by Senate is thought to be certain.

* * *

Presence of new chairman of House Education & Labor Committee, Rep. Graham A. Barden, (N. C. Dem.), after sudden death of Chairman John Lesinski of Michigan, may produce more middle-of-road consideration of labor legislation; probably will mean no action by Committee on pending "equal-pay-for-equal-work" bill at this session. Pigeon-holing of this legislation, which had been supported by CIO Communications Workers of America, became apparent when Rep. Kelly (D., Pa.), subcommittee chairman in charge of hearing on measure, left Washington for Europe to attend international conference.

* * *

In reappointment to FCC that will gain wide approbation, President Truman has sent to Senate nomination of Commissioner George E. Sterling for 7-year term on Commission beginning July 1, 1950. Because Commissioner Sterling for nearly two-score years has been identified with radio in several fields -- maritime, aviation, military, broadcasting and amateur -- his approval by Senate Interstate & Foreign Commerce Committee & Senate confirmation is felt to be assured.

* * *

HIGHLIGHTS: Mooreland (Okla.) Tel. Co. working on plan to improve & modernize its system....Lemonweir Valley Tel. Co., Camp Douglas, Wis., will convert to common battery operation....John Stroup elected pres., S & S Tel. Co., Ft. Pierre, S. D.....Farmers Tel. Co., Dodge County, Neb., planning $30,000 bond issue to finance improvements....H. D. Myers, Aledo, Ill., appointed mgr. of Seaton & York exchanges of Western Illinois Tel. Co.; succeeds Leonard Tweed, now mgr. at Eldon & Agency, Ia.....Revillo (S. D.) Farmers Tel. Co. planning to rebuild rural lines.

Ray W. Smith, Editor

Because you're cost-conscious, you'll appreciate this timely tip on drop wire. No. 18 Copperweld* Drop Wire actually costs you less than No. 17 drop wire of other types—and yet it has the same breaking strength—340 pounds. This means substantial initial savings for you.

And—because each Copperweld wire combines the rugged strength of alloy steel with the permanence and conductance of copper, you're sure of greater mechanical safety, longer life, excellent voice transmission characteristics and reduced maintenance expense. So—for real economy, from first cost to last, use No. 18 Copperweld Drop Wire. It's available with all types of insulation in twisted pair and parallel constructions.

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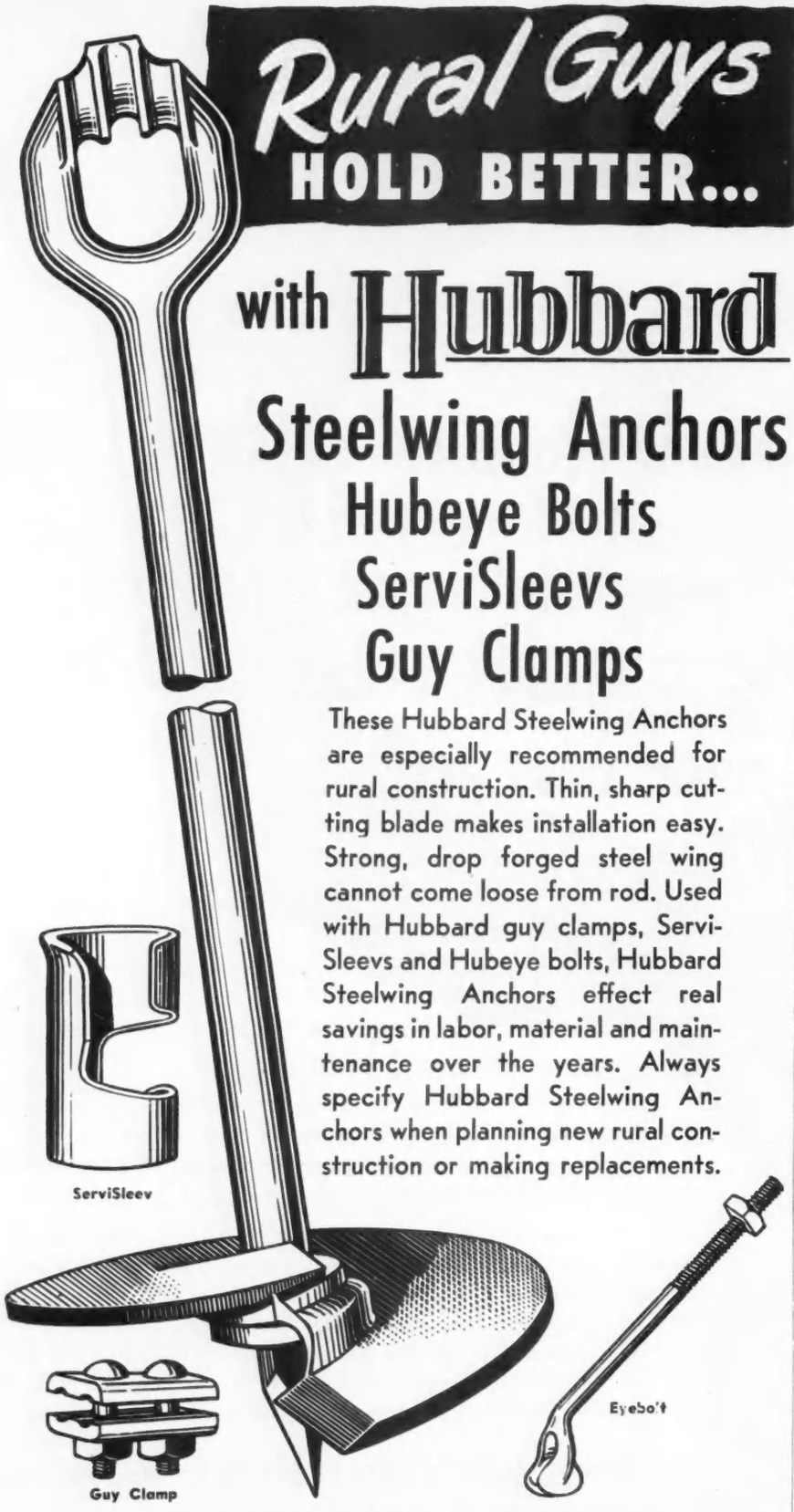

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North Dakota Company Applies For Rural Loan

The Wildrose (N. D.) Mutual Telephone Co. has made application for a loan from the government, with which to rebuild its lines. The *Wild Rose (N.D.) Mixer* reported Carl Haukedahl, secretary of the company, had received a wire from Senator Milton Young (D., N.D.) which stated a representative of the REA would inspect the company's properties.

Texas Co-op Plans Five-County Service

More than 250 applications have been received for membership in the proposed North Plains (Tex.) Rural Telephone Co-op, Frank Shaller, Canadian, Texas, reported recently.

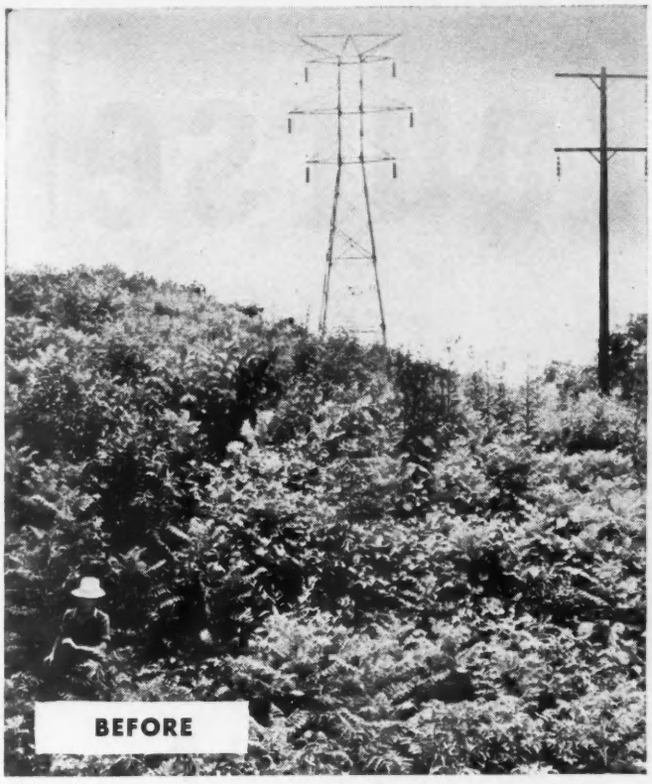
The co-op, organized along the lines of the REA cooperatives, hopes to extend rural telephone service to farm and ranch families in a four or five county area.

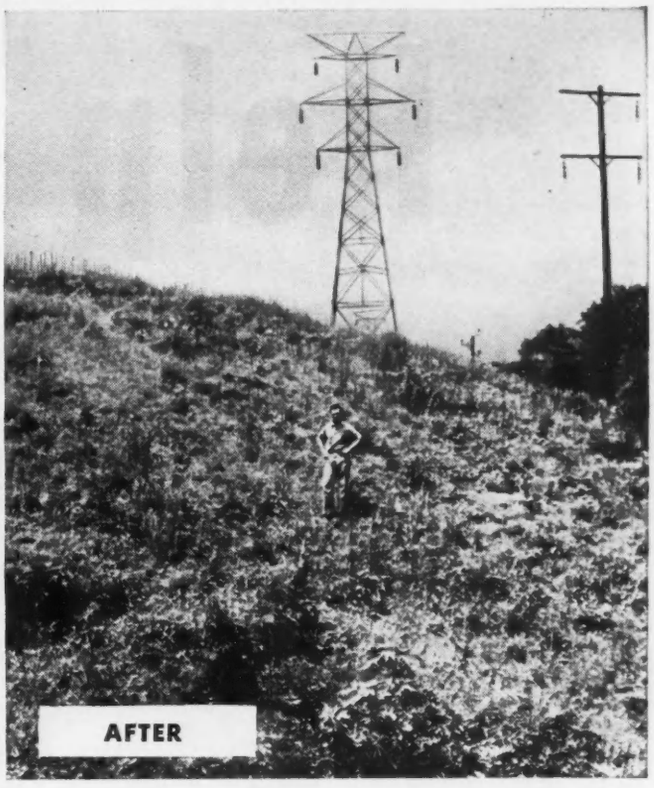
New Co-op Planned For Montana Area

Members of the Big Horn County Electric Co-Operative, Inc., which serves about 1300 people in Big Horn County, Mont. and Sheridan County, Wyo., and other persons interested in telephone service recently organized to secure a loan from the REA for the installation of rural telephones.

Committeemen were selected from each of the nine districts of the Big Horn Co-operative, and were given authority to organize a telephone cooperative in order that funds could be borrowed from the REA for the construction of lines and installation of telephone service.

Ray Trott of Lodge Grass, Mont., and Bert W. Kronmiller, co-operative superintendent and attorney, respectively, explained the procedure in the securing of a loan for installation of the service and the matter in which the organization must be set up.





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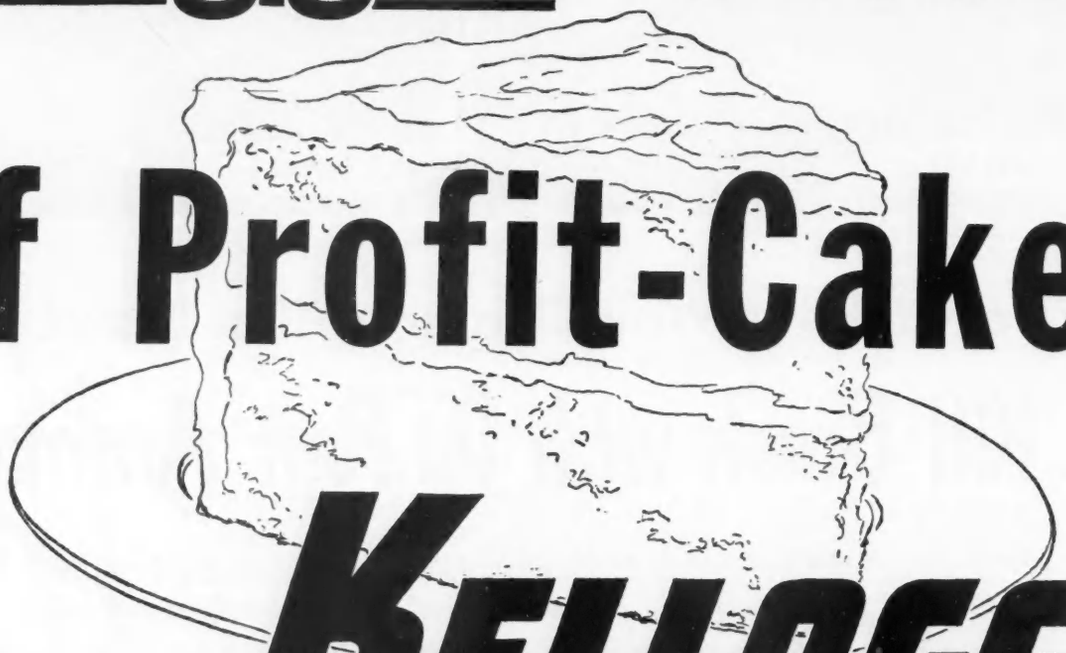

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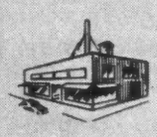
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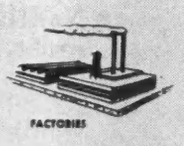
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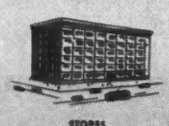
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The KELLOGG All-Purpose PBX returns you a maximum yield on your investment because it can be used in any exchange area having a common battery manual, dial or magneto main exchange—with connections to any one or all three at the same time. It can be moved from one type area to another without re-wiring or delay. Its rugged dependability assures year after year of low maintenance expense and fewest maintenance calls.

Right now, make up your mind to get *all* the facts on the KELLOGG All-Purpose PBX and what it can do to help your company make more money—from better satisfied subscribers.

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The KELLOGG All-Purpose PBX is available in two models: Type "J" and Type "K", in capacities of 50 to 200 lines. Type "J" provides either through or block supervision. Through supervision insures correct timing on toll calls, because the toll operator receives a disconnect when the PBX extension hangs up. Type "K" provides through battery feed and through supervision. Both models use jack-ended trunks.

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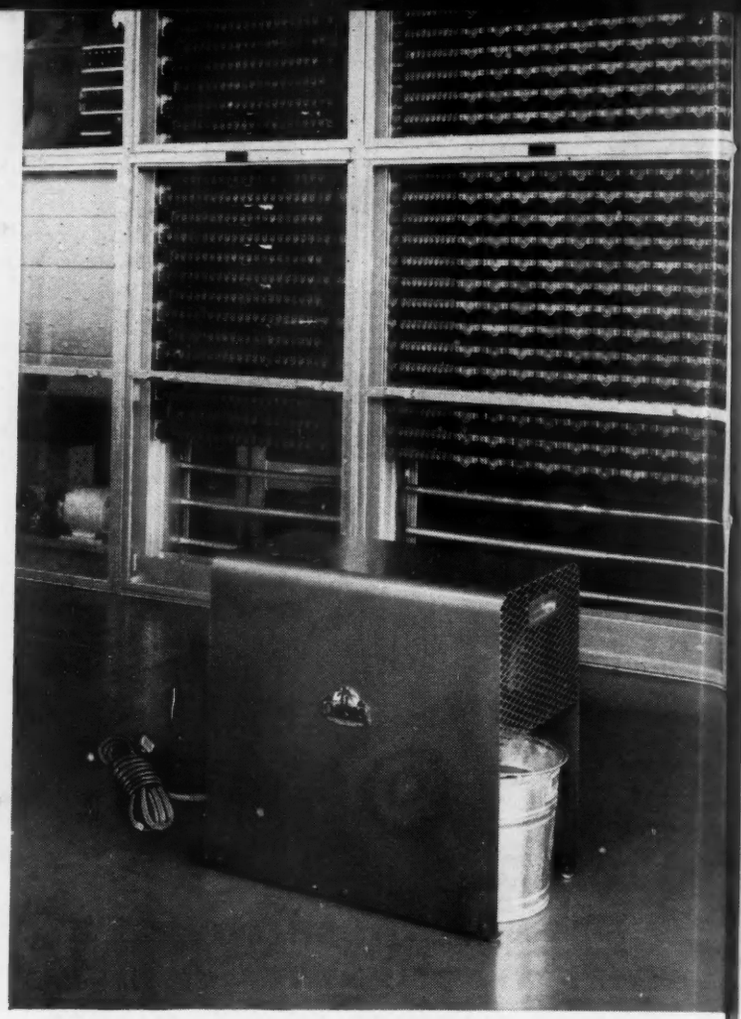

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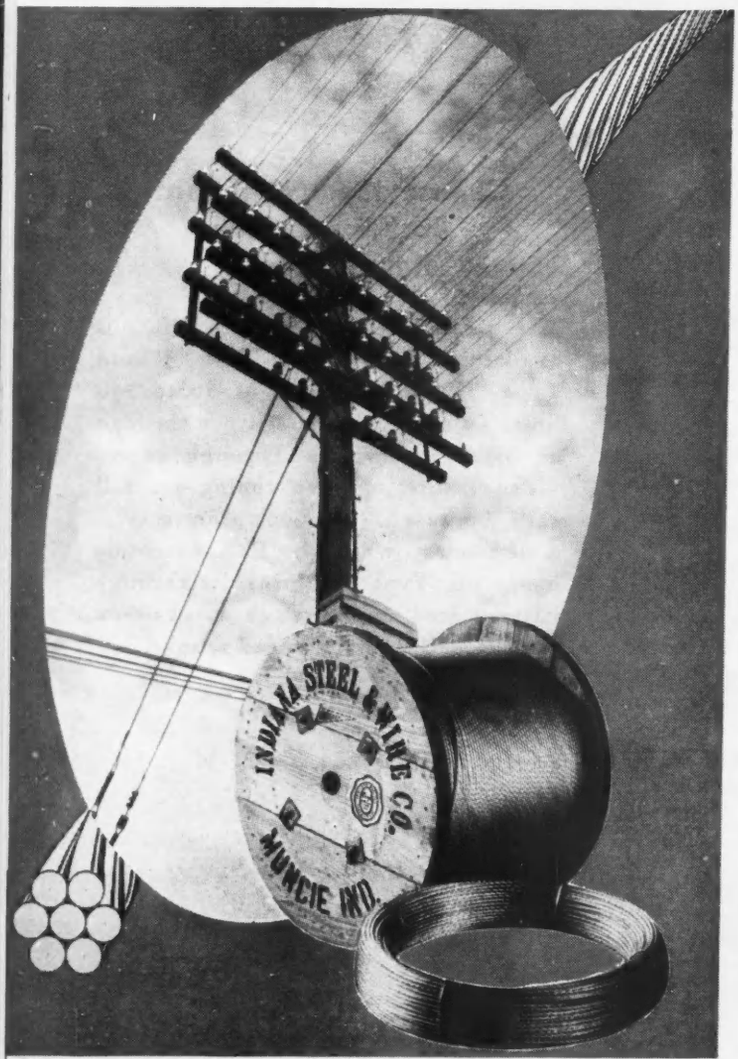

The Time-Tested Strand. Lasting protection against corrosion is provided in Indiana Crapo Steel Strand, thanks to its heavy ductile, tightly-adherent coating of zinc applied by the Crapo Galvanizing Process. This, plus rugged strength, assures long life and low maintenance. Use Crapo Steel Strand, made by INDIANA STEEL & WIRE CO.

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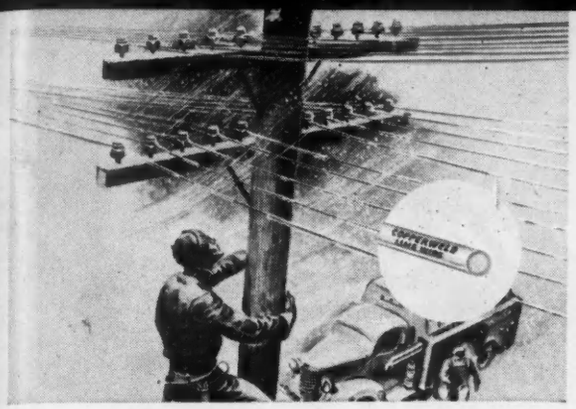

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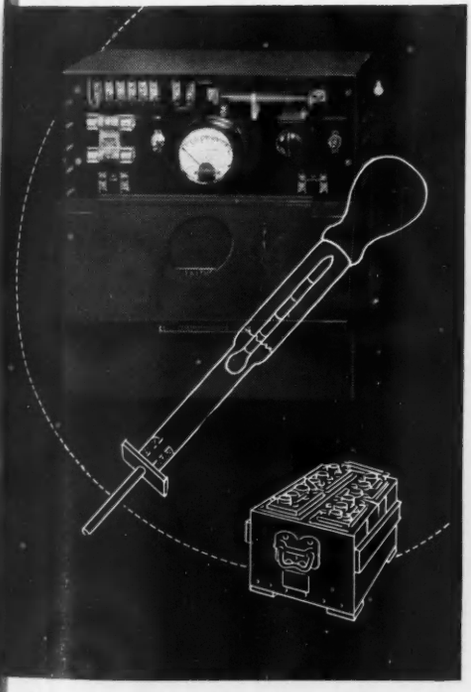

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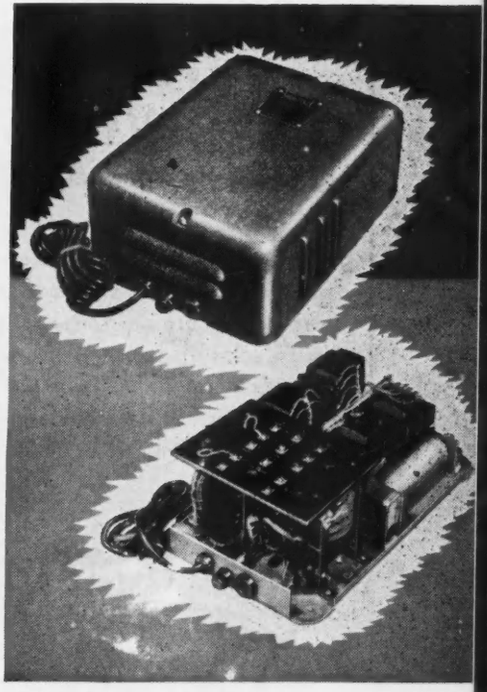

12 New Models—5 Cabinet Sizes comprise this new line of packaged power Sub-Cycle "RT-Units" for P.B.X. and small switchboards. Both ringing and talking power are combined in one cabinet. Made by LORAIN PRODUCTS CORPORATION. Write for Bulletin 159.

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WHEN THE Government hands out money at the rate of $125,000,000 a day, it is time for us to begin asking questions. Like these, for example: Are these expenditures *necessary?* Is the money being spent *wisely* and *efficiently?*

The Hoover Commission—a *bi-partisan* body—was appointed by President Truman to find the answers. Here are some typical items of waste which the Commission has uncovered:

The Army tore down a $16 million camp in Alaska and shipped the lumber to Seattle, Washington, where it was acquired by the Department of the Interior which shipped it back to a point less than ten miles from the original camp site.

The Federal Government owns 3.6 typewriters for every stenographer and typist on the payroll.

If the Army, Navy and Air Force could agree on uniform underwear, $7 million a year could be saved.

Cost of processing a government purchase order averages $10.00. Last year the federal government made more than 3,000,000 purchases. Over one-half were for items costing less than $10.00.

Twelve federal agencies are engaged in home and community planning—65 in gathering statistics—75 dealing with transportation—and 56 concerned with public health.

The Postal deficit for 1949 probably will exceed $500,000,000, or more than 30% of revenues.

The Federal Barge Line, operating at a loss for 23 years, has an accumulated deficit of $8,000,000.

The Veterans' Administration has over 15,000 employees to handle government insurance. This is a work load of 450 policies per employee. (Private insurance companies handle 1762 policies per employee.)

The average time taken by the Veterans' Administration to pay death claims is 90 days. (Private insurance companies pay 71% to 82% of claims in 15 days or less.)

The Department of Agriculture has so many agencies that they often work at cross purposes. In one Georgia county, 47 employees of 7 separate agencies were found working with 1,500 farmers. A Missouri farmer received conflicting advice from 5 different agencies on how to fertilize his field.

Tragic as this state of affairs is, it is not altogether hopeless, *provided you help to do something about it.* If you do not want to see these wastes continued, or increased by further expansion of Government bureaus and agencies, make sure that your representatives in Washington know how you feel about them. Write your Senators and Congressmen, irrespective of party affiliations, today and insist that waste be eliminated and expenses not absolutely necessary reduced.

As a service to readers, extra copies of this feature are available. Price postpaid, ten or more up to 100, one cent each.—Larger quantities, one-half cent each. Address Reprint Editor, Telephone Engineer Publishing Corp., 7720 N. Sheridan Rd., Chicago 26, Ill.

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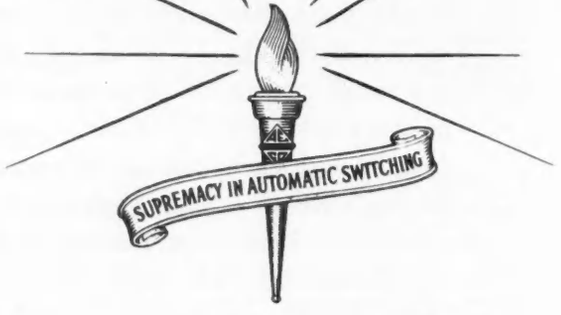

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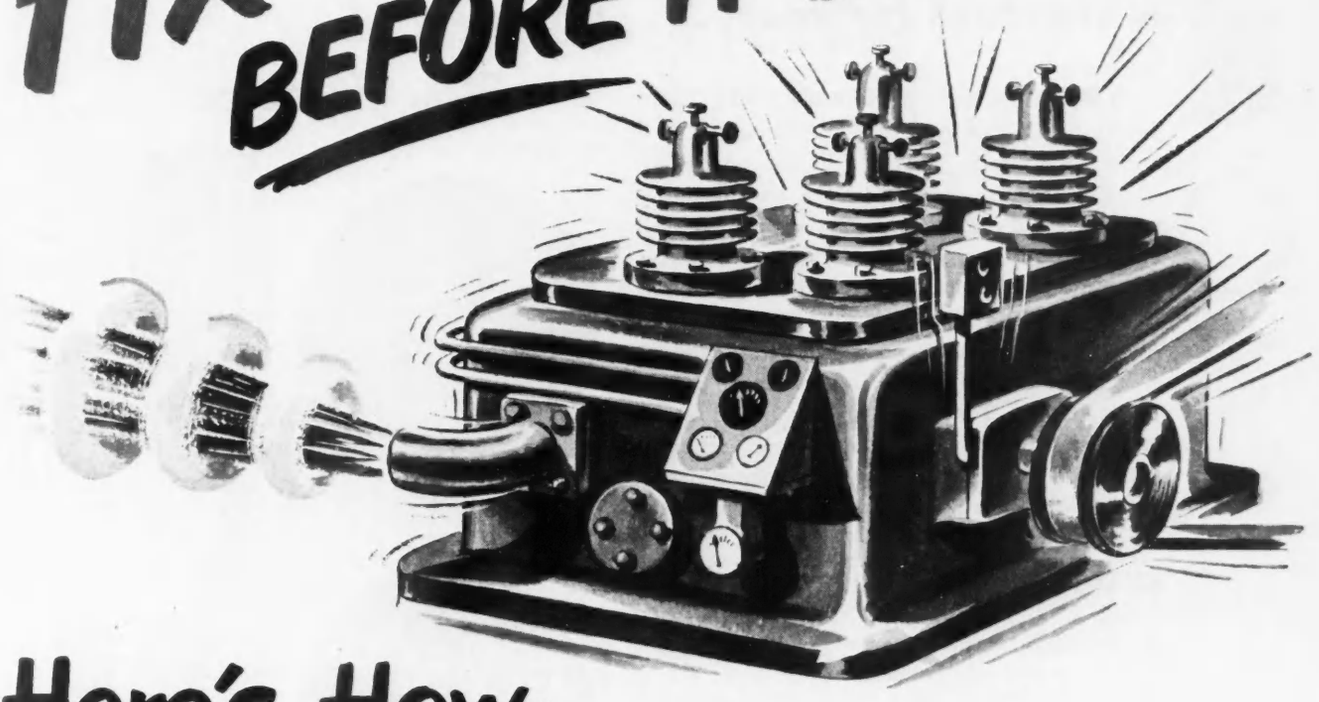

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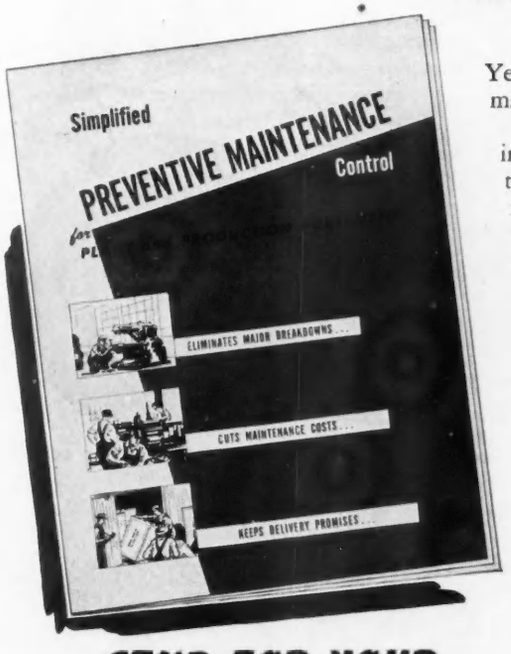

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Yes, with a Kardex Visible system, you review and *control* your preventive maintenance schedules . . . *at a glance!* Here's how the system works—

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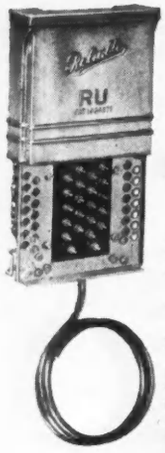

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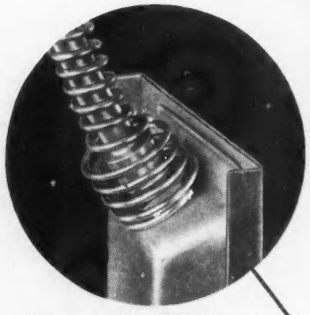
- Detachable mounting bracket simplifies installation.
- Ribbed aluminum alloy sliding cover resists corrosion.
- Chamber is filled and sealed with Reliable Cable Compound when furnished with stub.
- Flat fanning face plate simplifies wiring. Mounting bosses increase surface leakage distances.
- Heavy silicon bronze screws are free from season cracking.

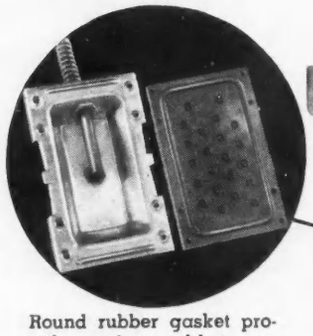
CAPACITY	HEIGHT OVERALL	STUB DATA	SHIPPING WEIGHT EACH POUNDS
6 Pair	11"	Less Stub	6½
		With 6' Stub	8½
11 Pair	11"	Less Stub	7
		With 6' Stub	10
16 Pair	12½"	Less Stub	9
		With 6' Stub	12½
26 Pair	16"	Less Stub	16
		With 6' Stub	25

Furnished with 6 ft. of No. 22 AWG double wrap paper insulated cable unless specified.

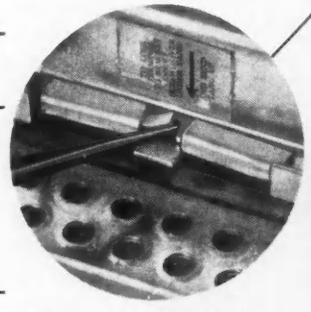
New Features



New cable soldering nipple and cable guard.



Round rubber gasket provides perfect seal between face plate and cable chamber. Ribbed plate adds rigidity.



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EDITORIAL

Invitations To Co-ops

THE UNITED STATES Independent Telephone Association and various state telephone associations are advising small Independent telephone companies to make application for REA loans for the extension and improvement of their systems, including their rural service.

The managements of many small Independent companies are determined that they will not borrow from REA and mortgage their property to REA. They fear that their revenues will be insufficient to meet the repayment terms of the loan. They fear, also, that the acceptance of an REA loan will put their business under the dominance of REA.

The associations point out, however, that an application for a REA loan does not bind the applicant to take the loan unless the terms as finally worked out are agreeable to the applicant. And of course there is no possible chance of working out satisfactory terms until and unless application is made for a loan.

There is another side to this picture; a side that must be carefully considered by telephone companies operating in rural territories. That is that unless such companies themselves supply adequate telephone service throughout their rural areas, such areas will be fertile ground for REA-financed telephone co-ops.

REA representatives are holding meetings of farmers and local people, instructing them in the organization and operation of REA co-ops, and how to borrow money from REA. The one-year loan preference—such as it is—given existing telephone companies in the law, expires October 28. Many telephone people expect a rush of REA loan allocations to co-ops immediately thereafter, with the probability that many of them will be for operations within the territories of existing telephone companies.

Just what adequacy of service means in any given area will in many cases be hard to define. But it seems reasonably certain that indifferent telephone service, limited as to area coverage, will not meet the test of adequacy even though the rates are low—especially when it must compete with newly-built, modern co-op plants and equipment.

Many Independent companies will consider the REA loan terms hard. Amongst other things, they require that 3% of the principal be paid back, plus the 2% interest, every year. They require that the borrower obligate himself to full area coverage, and that he supply some amount—varying with different cases—of equity capital. They also require that the entire plant be mortgaged to REA.

But the co-ops must meet the same terms!

In one respect existing companies have it easier than co-ops. The company's usable property will usually suffice to cover the equity requirement, while co-ops must dig up hard cash from their member-subscribers for their equity.

The one certainty about this whole proposition is that the borrower, whether existing company or co-op, must charge rates for rural telephone service high enough to pay all expenses and interest, and also to pay off the debt. Such rates will not be obtainable for any but high-quality, modern rural telephone service. But there are indications that rural subscribers want that kind of telephone service, and that they will pay—up to some limit—the price to get it. Just what that limit is, nobody yet knows.

An important point about this whole REA proposition is that, for the first time in the history of the telephone business, cheap, long-term money is now available, under certain conditions, to small Independent telephone companies. The big decision the small company has to make is whether it will meet those conditions and use that money itself to develop its own rural territory, or whether it will let the co-ops do the job instead.

It seems clear that if the existing telephone company does not itself supply adequate service in its own territory it is simply inviting the co-ops to come in and do the job.

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Model illustrated, three-lamp style No. 204798. Also available as one and two-lamp indicator.

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WASHINGTON BUREAU REPORTS

by Roland Davies and Fred Henck

That agencies of Federal and State governments do change is illustrated by recent order of Tennessee Commission granting more than two-thirds of rate increase requested by Southern Bell.

ABOUT THE only consolation that American citizens not entirely happy with the way agencies of federal and state governments operate is that, indubitably, things do change, and not always for the worse—perhaps it only seems that way.

One concrete illustration is the recent telephone rate increase order of the Tennessee Railroad and Public Utilities Commission, which two and a half years ago had the distinction of becoming the first regulatory agency in the nation to deny totally a rate increase petition by a Bell System company, after making wholesale disallowances of actual operating expenses in the apparent belief that things would be better in the future, if Southern Bell Telephone & Telegraph Co. would only tighten its belt and go on operating in the red in Tennessee until better days arrived.

Responsible to a substantial degree for the 1947 rate denial—later reversed completely in a series of court decisions which permitted Southern Bell to make its full rate request effective—was Commissioner Leon Jourolmon, Jr., usually regarded as one of the most left-wing members of a state commission ever to hold such an office.

It perhaps was more than a coincidence that when Mr. Jourolmon, after he was not reappointed to the state agency, ran for election as Davidson County Chancellor (judge of the Chancery Court) he was soundly trounced by a 3-1 majority. The man who defeated him was the jurist who reversed the 1947 rate decision, in a decision 100 per cent upheld by the Court of Appeals and the state Supreme Court, Chancellor William J. Wade.

Mr. Jourolmon now is a consultant to the Temporary Water Resources Policy Commission appointed by President Truman, after making the circuit of rate cases in appearances on behalf of intervenors in several states.

Although the commission did not agree with Southern Bell on the rate of return required to attract capital for Tennessee improvement and expansion, and thus granted slightly more than two-thirds of the $6,560,000 asked by the company, its order contained philosophy on arbitrary expense reductions which is particularly significant in view of the 1947 rate order.

The commssion said it "has no desire or intention to substitute its judgement for that of the company by making of arbitrary adjustments in the future costs of operating the property of the company, as such a procedure, when not supported by evidence of record, is nothing more than 'the holding forth of a better life to come'."

Again, on the license contract services provided Southern Bell by the American Telephone & Telegraph Co., the Tennessee commission declared that "The record shows that the services rendered by the (A. T. & T.) are of substantial value to the Southern Bell company in Tennessee, and the cost of these services as allocated to Southern Bell is less than the cost incurred by (A. T. & T.) in the rendition of the services and that it is most improbable that Southern Bell could obtain these essentially needed services at a lesser cost from any other source."

In another assault on theoretical computations by intervening witnesses, the commission said that "A witness for the intervenors, who admitted to no personal and practical experience in making separation studies and to no experience in the associated traffic and engineering fields, proposed to depart from the manual and reduce the intrastate rate base by apportioning the cost of station equipment and exchange outside plant on the basis of the separation of central office equipment. His proposed adjustment would be inconsistent with the 'use theory', which is the fundamental basis of the Separations

Manual, and such an adjustment would be arbitrary and in conflict with recognized separation procedures. . . ."

Another rejection of the theoretical approach came when the commission refused to trim the amount of working capital included in the Southern Bell rate base. The commission said, "A technical and theoretical calculation as to the amounts required for these purposes is not to be preferred to the actual facts of record."

At the same time, the commission, as well as refusing to arbitrarily reduce expense items, also turned down a company plea for added rates to allow for the depressing effect on earnings of the high-cost plant currently being installed. The order commented, "The commission will not ignore the known facts and conditions in favor of a future depressed by company predictions of heavy construction cost any more than it will ignore the known facts and conditions in favor of a future brightened by intervenor predictions of declines in expense levels."

"Gambling Information"

SWEEPING legislation to ban the transmission of virtually any information about a horse or dog race, other than entries and scheduled starting times, prior to the start of the race, has been unanimously reported out by the Senate Interstate and Foreign Commerce Committee.

By its terms, the measure is felt to put much of the enforcement burden on communications companies and the Federal Communications Commission, rather than placing it entirely on law enforcement authorities, as recommended by the FCC and the companies. The bill makes it unlawful for anyone "to lease, furnish, or maintain any communication facility . . . if such facility is used to transmit or receive gambling information in interstate or foreign commerce."

Some delays are expected before Senate approval at the current session of Congress, because of the view of Judiciary Committee Chairman Pat McCarran (D., Nev.) that his committee should pass on the measure before Senate action. Senator McCarran believes that the ban on race news transmission to anyone, regardless of the purpose for which the news is being sent, brings up Constitutional questions which should be considered by his committee.

The usual mid-season logjam of bills awaiting Senate action, including several measures regarded as "musts" by the administration, is another reason mitigating against immediate Senate consideration. Even if the Senate approves the measure, there does not appear to be sufficient time for House action on the bill this year.

Major revisions by the Interstate Commerce Committee of the bill proposed by the Attorney General's Law Enforcement Conference were as follows:

(1) The definition of illegal gambling information to cover pre-race transmission to anyone of such data as bets or wagers, scratches, jockey changes and weights, probable winners, betting odds, or changes in the adds. The Law Enforcement Conference bill would have permitted all news to go to legitimate recipients, such as publications, and would have endeavored to bar information to be used for gambling purposes.

(2) Application of criminal penalties—imprisonment up to one year and fines up to $1,000—for violations. The Attorney General's bill would have required only discontinuance of service to illegal users.

(3) Extension of the penalties to the actual senders and receivers of gambling messages. The Attorney General's bill did not make sending or receiving gambling information a violation of the law.

(4) Barring of the pre-race information from all radio broadcasts. The Law Enforcement Conference's bill would have allowed unrestricted broadcasting of one race a day as a special event.

The U. S. Independent Telephone Association, the Bell System, and the Western Union Telegraph Co. had objected during the hearings before the Senate Interstate Commerce communications-radio subcommittee to any bill which in effect would require them to monitor all communications to learn if gambling information were being transmitted. Such a requirement, inherent in legislation making it illegal for a common carrier to permit its facilities to be used for transmitting data, would run completely counter to the privacy the public expects and deserves in its communications, they emphasized.

In a statement concurrent with the announcement of the bill, Senator Ernest W. McFarland (D., Ariz.), Chairman of the communications-radio subcommittee, did not mention the companies' objections to the legislation. It was expected that the subject would be covered in the committee's report on the bill, slated to come out about two weeks after the bill was reported.

Meanwhile, the FCC at the request of the Senate special crime investigating committee, has asked the nation's telephone and telegraph companies to retain their message records beyond the usual six months' period required in the FCC rules for companies under its jurisdiction. Cross-checking of communications to and from known bookmakers and criminals is expected to be a good source of information for the committee.

Coming Conventions

Michigan Independent Telephone Association, Olds Hotel, Lansing, Sept. 14 and 15.

Rocky Mountain Telephone Association, Newhouse Hotel, Salt Lake City, Utah, Sept. 21 and 22.

Tennessee Independent Telephone Association, New Southern Hotel, Jackson, Sept. 27.

United States Independent Telephone Association, Hotel Stevens, Chicago, Oct. 9, 10, and 11.

North Carolina Independent Telephone Association, Carolina Inn, Pinehurst, N. C., Oct. 16-17.

South Dakota Telephone Association, Cataract Hotel, Sioux Falls, Oct. 26-27.

South Carolina Independent Telephone Association, Wade Hampton Hotel, Columbia, Nov. 6-7.

Georgia Telephone Association, Dempsey Hotel, Macon, Nov. 9 and 10.

Missouri Telephone Association, Muehleback Hotel, Kansas City, Nov. 20-21.

President Truman Re-appoints Sterling To FCC

IN A REAPPOINTMENT to the Federal Communications Commission which is felt to be certain to gain Senate confirmation, President Truman has named Commissioner George E. Sterling for a full seven-year term on the agency, starting July 1. Commissioner Sterling, a former FCC Chief Engineer, has been serving as a Commissioner since early 1948, filling the unexpired term of E. K. Jett.

One of the real veterans of government radio regulation, Commissioner Sterling started his government career in 1923 with the Commerce Department's Bureau of Navigation, after having served as a merchant marine radio operator and inspector for three years after World War I.

THE MARKETS for NEW CAPITAL

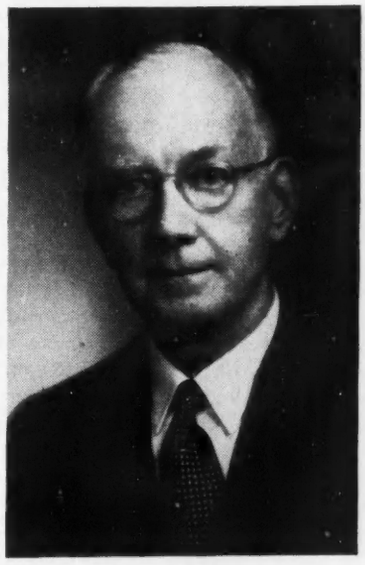
By

ALBERT W. KIMBER

FORECASTING the stock market is a hazardous activity, almost as hazardous as playing in the market itself. But forecasting must be done, because it is necessary to so many important interests.

Professional market forecasters belong to one of two groups: (a) those attached to stock brokerage or securities underwriting concerns, and (b) those who are independent, such as investment counsel, or associated with insurance companies or other large investors. Stock brokers are interested primarily in obtaining trading orders, they care more about probable developments within the next few weeks than they do for the longer term, and the technicians who write their market letters incline mostly to be optimistic; while the independent forecasters, having no interest in stock market trading, concern themselves more with fundamentals and the probable course of securities prices over a period of months to come. To them it is vitally necessary to foresee any change in the direction of a sustained price movement, especially the so-called major trend.

Price movements in the trading markets for stocks and bonds are significant, of course, to the management of any business that looks forward to an occasion to sell new stocks or bonds, whether for new capital or for refunding. Not so much because trading market price movements affect the markets for new offerings, they do so in some degree; but it is rather that all securities markets are influenced by the same forces that determine the direction of price movements in the trading markets. And reports of such prices and comments on their movements are everywhere available, while conditions and developments in the new issue markets are not so widely known. But it is a curious fact that the new issue markets usually begin to reflect the force of the underlying factors earlier than the trading markets do. This is because the trading markets are the scene of some speculative operations which often carry a price movement further than the underlying forces warrant. By contrast the new issue markets are predominantly of investment character, there is little speculation in them.



A. W. KIMBER

Everybody knows that it is easier to sell new issues of stocks or bonds during a period when trading market prices are in an uptrend than while they are in a decline. During an uptrend investors are more receptive to new offerings, and as the uptrend continues will pay higher prices for bonds or stocks of the same issue, or of new issues of similar quality.

The foregoing makes all the more interesting the record of new security issues in the year to date, compared with the same period of 1949. Table One shows the dollar volume of offerings and placings of new stocks and bonds by public utilities during the first six months of this year and last year. The larger volume of such financing this year will be noted. The striking feature of this table, however, is the pronounced shift from bonds to stocks. Be it remembered that during the first half of 1949 stock market prices fluctuated irregularly downward, while 1950 thus far has seen a persistent advance, continuing a rise which had already been in progress for six months. The total of electric and telephone utility stocks floated in the January-March 1950 period does not include the 2,800,000 shares of American Telephone & Telegraph stock offered to employees with maximum price of $150 per share. but even without this item it is obvious that the utilities this year have been obtaining their new capital through sale of stocks more and more in preference to bonds. And investors have readily taken all offerings of both preferred and common. It has been a good time to sell stocks.

Despite this favorable market situation, a condition has been developing which threatens the solvency of many independent telephone utilities, namely, the practice of obtaining capital for construction and improvements by means of bank loans running for two to three years. The argument in favor of this method is, of course, its economy; the borrower may obtain a credit for the full amount of his requirements, but draw the cash only as needed, paying say 2% per annum interest on amounts as drawn down plus a commitment fee of say ½% per annum on balances not drawn. This is cheap money, for the time being, but some companies have run so far ahead with it that their debt now, long term bonds plus the bank loans, amounts to 75% or 80% even of their total capital issues. Of course, the bank must be repaid, usually according to the contract in from six months to a year after the last installment of cash is received by the borrower. And, of course, the company management intends eventually to sell bonds or stock to provide the funds to pay

these bank loans and thus convert the short term obligations into capital issues of more permanent form.

The danger in this method of financing is that when the time comes to sell the permanent securities the markets may have taken such a turn that such new securities cannot be sold. Memories must be very short indeed which do not recall periods not so long ago when the markets for new security offerings dried up almost completely, and stayed so for one or two years, none but the very highest credits could place any new securities and then only at high interest or dividend costs.

Is there a risk now that such a period will be with us before long? Some of the most experienced and successful securities market forecasters have recently gone on record, in public addresses or published articles, declaring that a reversal of the bull market in stocks which has been in progress since July 1949 is impending. They have been supported by words of caution from prominent bankers and others not associated with the securities markets. Others dispute this judgment. But it is noted that some historically dependable signals have lately become evident, among them the declining average prices of bonds in the trading markets, and since March the refusal of investors to pay for new issues of high grade long term bonds prices as high as those they had been paying for bonds of similar quality during the preceding several months.

No forecast of early future securities market conditions is made here. This writer merely asserts that in view of the developments of the past two months or more, a management which continues to load its company with debt to banks or other short term lenders is taking a risk which can be avoided at a small temporary additional cost of money. Long term bonds can be placed on draw-down terms similar to those outlined in our March article (page 33), and *Table One* shows how much easier it has been recently to sell preferred and common stocks. The present looks like a good time to sell stocks.

Bonds and Debentures

NEW OFFERINGS of bonds and debentures by independent telephone companies during the three months period March-May 1950, as shown in *Table Two*, were in somewhat larger amount than in the preceding three months, but less than half what they were in the same period a year ago. Prices and yields, indicating the cost of bond money, showed no trend toward lower money costs for this type of company, perhaps in part because of the deteriorating conditions in the bond market generally.

Trading market prices for bonds already outstanding and listed on a national exchange advanced steadily though not substantially during the second half of 1949; for example, the Dow-Jones average of forty bonds recorded its 1949 low at 97.26 last June, then rose to 102.47 in January 1950. But since that date this average has wavered with a generally declining trend; at the beginning of May it was 101.66, and by the end of May 101.16. A movement roughly parallel to this took place in the selling prices of new bond offerings for electric utilities. During the last quarter of 1949 and in January 1950 several big issues of high grade were placed at prices to yield less than 2.70%, but in recent months new electric utility issues brought to the market at less than 2.70% could not be fully sold at the offering prices. In March, for example, Detroit Edison offered $35 million 2.75% at 102.271; the syndicate closed after placing only about $13 million, and even by the end of May the bonds were bid only 101.25. In May, Potomac Electric Power offered $30 million 2.75% at 101.127; the syndicate sold about $10 million at that price and in the open market then the bonds were bid 100.50, at the end of May 100.625. Public Service Electric & Gas $26 million 2.75%, offered in May at 101.75, were only about one quarter sold when the syndicate closed; then in the open market the bid was 101, and by the end of May 101.25. All the bid prices mentioned in the foregoing were lower than the prices paid by the syndicates for the bonds. This kind of experience, of course, does not encourage underwriters to steam up in competitive bidding for further new issues for a while.

But new bond offerings priced more realistically were quickly sold. In May the $17,500,000 Oklahoma Gas & Electric 2.875% to yield 2.77% and the $58,000,000 Ohio Edison 2.875% at 2.764% were all sold on the day they were offered. It is true that these two issues were mostly for refunding, which aided their sale, while those mentioned in the preceding paragraph were all for new money.

One dampener in the new issue bond market has been the rising amount of unsold state and municipal bonds in dealers' hands. At the end of May this was conservatively calculated at well over $200 million, up $7 million from the week before, and the largest such figure on record. Offering prices have been cut on many of these unsold bonds. On top of it June will see bidding for New York State of $70 million, Pennsylvania $65 million, Maryland $25 million, and many smaller issues to an aggregate (already announced) of over $256 million for the month. Some of the aggressive bidders for utility and other corporate bonds are also active in the state and municipal field. The large amount of utility bond registrations for June offering is shown in our *Table One*, it is nearly three times the monthly average of the first five months. And all this in a bond market where prices are already in a decline. Looks as if investment quality bonds may be in oversupply for a time.

Table One—Public Utility New Security Issues—Six Months

January-June	1950 Electric & Telephone	1950 All Utility	1949 All Utility
Bonds			
January-March	$ 510,755,000	$ 609,400,000	$ 366,811,900
April	87,190,000	101,090,000	192,177,000
May	187,750,000	263,500,000	77,975,000
In registration for June	258,550,000	554,210,000	842,450,000
	$1,044,245,000	$1,515,300,000	$1,479,413,900
Stocks			
January-March	274,213,645	359,392,420	75,073,000
April	106,042,500	132,166,200	158,127,760
May	135,175,110	157,673,410	117,943,965
In registration for June	97,656,360	153,497,360	83,968,350
	$ 613,087,615	$ 802,729,390	$ 435,113,075

Notes: Bonds taken at principal amount, stocks at offering prices. Table includes both public offerings and private sales, also sales by parents (divestment), but no sales by operating utilities to parents.

Preferred Stocks

NEW OFFERINGS of preferred stocks by independent telephone companies during March-May 1950

were all small, although in sale value well above the December-February aggregate, and nearly double the total for March-May 1949. Prices and dividend yields showed little change, the latter still mostly in the 4.50% to 5.50% range, according to the respective corporate credits and the markets in which the new preferreds were sold. But, as shown in *Table Two*, the number of different preferred offerings in this category was too small for definite conclusions as to market conditions generally for this type of security.

By contrast, during the same 1950 period, electric utilities offered 16 different large issues of preferred stock; the lowest dividend yield was 3.77%, the highest (the only one above 5.00%) was 5.50%; eliminating these two extremes the average dividend yield of the other 14 issues was 4.35%. It continues to be true that the electric utilities obtain their new preferred stock capital at lower per annum costs than the telephone industry has to pay, and those costs for the electric utilities have been coming down. Companies that sold preferreds about a year ago and again during the past three months include: Illinois Power dividend yield basis this April 4.00% against 4.55% in April 1949, Rochester Gas & Electric 4.10% against 4.65%, Central Arizona Light & Power 4.67% against 5.00%.

Prices of preferred stocks in the trading markets have been firm and trending up. No more slipping down to discounts from offering prices of new preferreds. Practically every issue of electric utility preferred placed in 1949 or in early months of 1950 is now bid higher than the offering price.

Common Stocks

TELEPHONE and electric utilities during the last three months got more of their equity capital through the sale of common stock than of preferred. Both groups placed a larger number of common stock issues than during the preceding period, and the dollar sales value of the offerings averaged higher. All of these common stock offerings in the recent period found ready sale at the issue prices, except for a few offerings of small companies in strictly local markets where the going was a little slower, and except for two of the Bell system offerings. Mountain States Telephone offering of common stock in April was for a total of 183,918 shares, of which the parent company took its quota of 150,133, leaving 33,785 shares for the other stock-

(*Please turn to page 64*)

Table Two—Telephone Company New Capital Issues March-May 1950

Bonds and Debentures	Amount	Price	Yield
March 1950			
New Jersey Bell Telephone Deb. 2.75% 1990	$15,000,000	102.457	2.65%
Jamestown Telephone (N.Y.) 1st 3.25% D 1967	500,000*	101.00	3.15%
United Utilities, Inc. (Kansas) Deb. 3.75% 1973	2,500,000*	100.00	3.75%
Jefferson Telephone (Iowa) 1st 3.25% 1970	131,000	101.00	3.20%
North Pittsburgh Telephone (Pa.) 1st 4% B 1970	75,000	101.00	3.92%
May 1950			
Harrisonburg Telephone (Va.) 1st 3.25% C 1967	200,000*	100.00	3.25%
Lincoln Telephone & Telegraph (Neb.) 1st 2.75% A 1976	1,000,000*	100.375	2.73%
Meadville Telephone (Penna.) 1st 3.50% A 1966	500,000*	102.848	3.28%
Peoples Telephone Corporation (Penna.) 1st 3.25% 1965	450,000*	100.00	3.25%
Preferred Stocks	**No. of Shares**	**Price**	**Yield**
March 1950			
California Water & Telephone 5.00% Pfd. $25 par	35,000	24.50	5.10%
Jamestown Telephone (N.Y.) 5.00% 1st Pfd. $100 par	10,000	100.00	5.00%
April 1950			
Southwestern Associated Telephone $5.50 Pfd. no par	16,500	101.00	5.45%
Pioneer Telephone (Minn.) 5.00% Pfd. B $100 par	1,000	100.00	5.00%
May 1950			
Meadville Telephone (Penna.) 5% Pfd. $25 par	12,000	25.00	5.00%
Quebec Telephone Corporation (Can.) 5.00% Pfd. $20 par	25,000	20.00	5.00%
Peoples Telephone Corporation (Penna.) 4.50% Pfd. $100 par	2,500	102.00	4.41%
Citizens Telephone (Indiana) 4.50% Pfd. $100 par	3,000	100.00	4.50%
Common Stocks			
March 1950			
California Water & Telephone Common $25 par (2)	50,000	29.00	6.90%
Carolina Mountain Telephone (N.C.) Common $1 par (0.03)	61,250†	2.00	1.50%
Jamestown Telephone (N.Y.) Common $100 par (8)	1,883	120.00	6.67%
Southern New England Telephone Common $25 par (1.60)	400,000†	25.00	6.40%
West Coast Telephone (Wash.) Common $20 par (2)	35,000	30.00	6.67%
April 1950			
Southwestern States Telephone Common $1 par (0.80)	114,828	12.75	6.27%
Inter-Mountain Telephone (Va.) Common $10 par (0.80)	95,000†	10.00	8.00%
Lincoln Tel. & Tel. (Neb.) Common $16.66 par (1.50)	15,000†	20.00	7.50%
Mountain States Telephone Common $100 par (6.00)	33,785‡	100.00	6.00%
Pacific Telephone & Telegraph Common $100 par (7.00)	85,785‡	100.00	7.00%
May 1950			
Peninsular Telephone (Fla.) Common no par (2.50)	50,938	40.00	6.25%
Cincinnati & Suburban Bell Telephone Common $50 par (4.50)	234,856†	50.00	9.00%
Meadville Telephone (Penna.) Common $25 par (1.50)	5,000	25.00	6.00%
Peoples Telephone Corporation (Penna.) Common $100 par (8.00)	2,400	130.00	6.15%
Maritime Telephone & Telegraph (N.S.) Common $10 par (0.80)	255,570†	14.00	5.71%

Notes: *Private sale. †Offered to stockholders. ‡Offered to stockholders other than parent.

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Rebuilding The Rural Outside Plant

By John S. Reed

Part V of Mr. Reed's article continues his discussion of important features of the well-built rural lead. Part IV of this Article appeared in the June Fortnightly Telephone Engineer.

CROSSARM LEADS are easier to maintain than multiple bracket leads. Types of crossarms most commonly used are indicated in *Figure* 44. Pony type arms are considered more satisfactory for rural leads than standard arms which are intended principally for toll leads.

The method of attaching a crossarm to the pole is illustrated in *Figure* 45. The crossarm is adjusted at right angles to the pole by means of a carpenter's square. The short leg of the square is laid against the bottom of the crossarm in line with the crossarm bolt while sighting along the long leg of the square to a point marked on the pole near its ground line. The braces of the crossarm are brought together at the lower ends to line up the holes there. These holes should line up with the sighting line along the square. The braces are then fastened in position with the drive screw.

When it is necessary to employ 12-inch spacing of the crossarms, the braces are changed from the front to the back of the crossarm. This enables the lower crossarms to overlap the braces for the upper crossarm without interference. For 18-inch spacing of the arms, it is necessary to bore new holes for the carriage bolts in the arms, 4 inches farther away from crossarm bolt than the original holes. The braces are then reattached in the new holes with the same bolts.

When a side-arm construction is required, the arrangement illustrated in *Figure* 46 is often used when the wires must extend a considerable distance laterally to avoid interference by trees or other obstructions, or more than four wires are to be carried. If the arm is to extend a shorter distance than indicated in the illustration, so that the braces can be placed in the standard manner, a

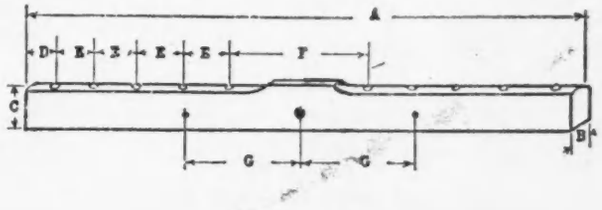

Fig. 44 — Dimensions of different types of crossarms.

Type of Crossarm	Dimensions of Crossarm							Size of Brace
	A	B	C	D	E	F	G	
Std. 10-pin	10'0"	3 1/4"	4 1/4"	4"	12"	16"	21"	30"
Type B 10-pin	10'0"	3 1/4"	4 1/4"	4"	10"	32"	21"	30"
Pony 10-pin	8'6"	2 3/4"	3 3/4"	4"	9 3/4"	16"	14"	24"
Std. 6-pin	6'0"	3 1/4"	4 1/4"	4"	12"	16"	21"	30"
Pony 6-pin	5'2"	2 3/4"	3 3/4"	3½"	9 3/4"	16"	14"	20"

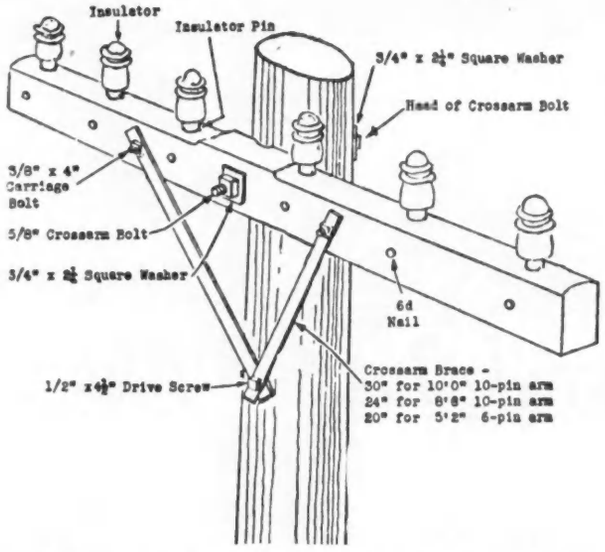

Fig. 45 (above)—Method of mounting crossarm on pole.

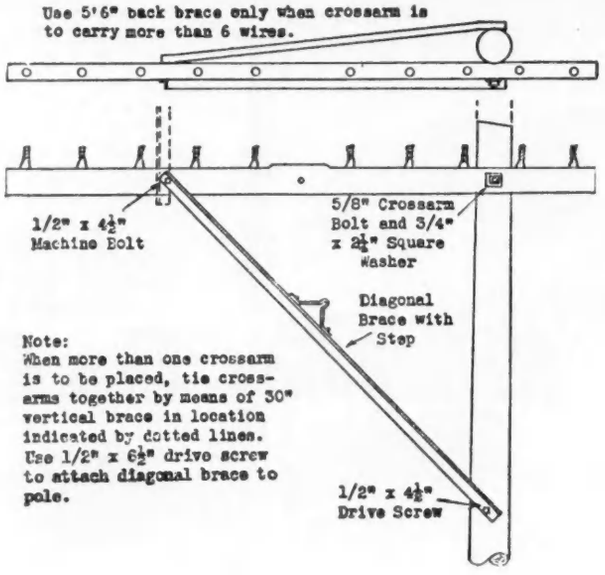
Use 5'6" back brace only when crossarm is to carry more than 6 wires.
1/2" x 4½" Machine Bolt
5/8" Crossarm Bolt and 3/4" x 2½" Square Washer
Diagonal Brace with Step
Note:
When more than one crossarm is to be placed, tie crossarms together by means of 30" vertical brace in location indicated by dotted lines. Use 1/2" x 6½" drive screw to attach diagonal brace to pole.
1/2" x 4½" Drive Screw

Fig. 46 (right)—How crossarm is arranged to obtain sidearm construction.

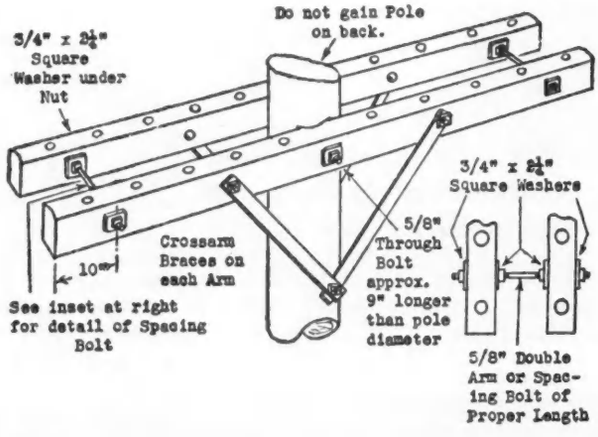
Do not gain Pole on back.
3/4" x 2½" Square Washer under Nut
3/4" x 2½" Square Washers
5/8" Through Bolt approx. 9" longer than pole diameter
Crossarm Braces on each Arm
10"
See inset at right for detail of Spacing Bolt
5/8" Double Arm or Spacing Bolt of Proper Length

Fig. 47—Double arm construction.

Fig. 48—Placing a double arm on pole prior to erection of the pole.

pony 10-pin crossarm may be used. The braces are attached, one on each side of the pole to secure the short and long ends of the arm. No more than four wires should be carried on this kind of extension arm. In some cases, a 6-pin crossarm may be sufficient to displace the line wires the required distance from the interfering object. New holes are bored in the crossarm for the crossarm bolt and the brace bolts and the arm located in the new position. If it is found that there is no room for the brace on the short end of the arm, two 24-inch braces may be placed on the long end, with one brace on each side of the arm.

Pole Fixtures At Corner Poles

DOUBLE ARMS installed as shown in *Figures* 47 *and* 48 are required on poles adjacent to a railroad crossing, at corners on a single pole where the pull is 40 feet or greater, at corners on two poles, at dead ends, and at a change of grade exceeding the maximum permitted. In cases of unusual span lengths exceeding the normal length by 50 per cent, the poles at the ends of the long span should be equipped with double arms.

The buckarm construction illustrated in *Figure* 49 is employed at single pole corners (right angle turns), also at branch offs from the main line that cannot be carried on a two-pole corner. In the latter case, the main line crossarm is not double armed.

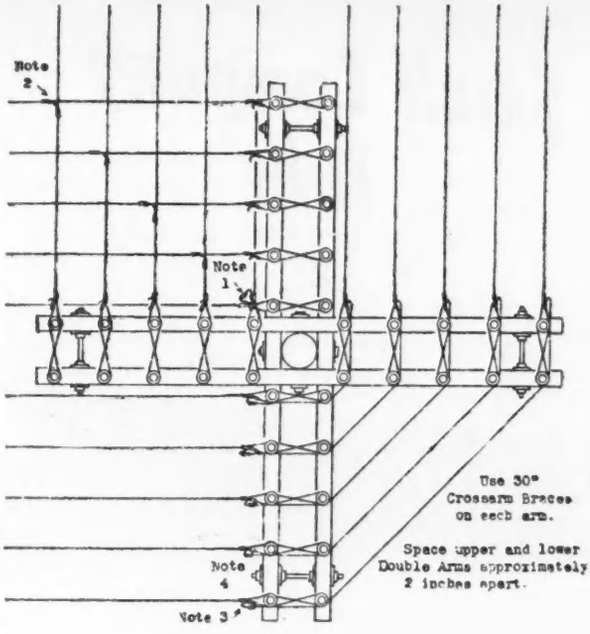
Note 2
Note 1
Use 30° Crossarm Braces on each arm.
Space upper and lower Double Arms approximately 2 inches apart.
Note 4
Note 3

Fig. 49—Buckarm construction.

Notes:

1. Splice tails of lines wires together with straight compression sleeve.
2. Splice upper line wire to corresponding lower line wire with offset tap compression sleeves and short length of jumper wire.
3. Make one tail sufficiently long to serve as jumper and splice at this point with straight compression sleeve. If tail is not long enough, make splice in another location along the jumper.
4. Use offset dead-end sleeve and Figure-8 arrangement dead-ending line wires on two insulators.

A recently developed buckarm or dead end construction makes use of spool type insulators instead of standard glass insulators on insulator pins. This type of construction is illustrated in *Figure* 50. The spool insulators should preferably be of glass in order to maintain line leakage at a minimum. Leakage at this point is apt to make the line noisy when a power line parallels the telephone line. Instead of the double arm illustrated, a single 4" x 4" arm may be installed, with the arm placed to pull against the pole. This arm is shorter than the standard crossarm to reduce the strain due to the leverage at the ends and the spool insulators are spaced closer together than normal. This arrangement makes it easier for the lineman to reach the farthest wires.

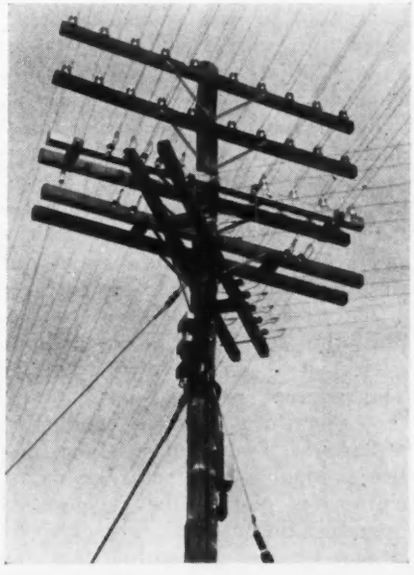

Fig. 50—Buckarm construction using double arms with spool-type insulators.

Use of Anchor Guys

AFTER SETTING a corner or dead-end pole, the pole is guyed in the proper direction to prevent distortion or breaking of the pole or fixtures as the result of the unbalanced pull of the wire load at the corner or dead-end point. The guy and the anchor must be strong enough to hold this unbalanced pull.

An important factor in determining the strength of the pole guy required is the lead to height ratio, or lead divided by height, as will be indicated in *Figure* 51.

Part VI of Mr. Reed's series will appear in the July, FORTNIGHTLY TELEPHONE ENGINEER.

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Small Company Talk

By Bill Corman

Depreciation is a prime management consideration, as well as an accounting consideration. To ignore it is simply bad management.

HI, NEIGHBOR! Depreciation is a word, a term, and an idea that is not new in the telephone business, but the accountant, financial man, manager, commission or professor who can't come up with a new idea about it, does not, I believe, exist. Not to mention the lawyers, for they have some very definite ideas on the subject, also. In fact, almost anyone who has any stake in the matter has his own ideas of what it is, what it does, how much it should be, how it should be used, how it should be recorded on the books, etc. I have never met anyone who has studied the subject who will admit that he doesn't know those things. The trouble is that no two of them ever seem to agree on the subject. It is no wonder therefore, that there is so much confusion on the matter, especially on the part of those who have more important things to worry about. Depreciation, furthermore, can be manipulated, both legally and illegally, just as can almost any other set of figures, and the combination of misunderstanding, vagueness, and deliberate attempt to slant the figures one way or the other, has, in short, made a mess of the whole subject.

The situation is further complicated by the fact that different commissions allow different procedures, and that in hardly any cases do these procedures necessarily dovetail with the allowances that the internal revenue folks (income tax) will make on the subject. If all of this is getting you more confused than you may already have been, please believe that is not the intent. The idea is to try to leave myself a hole to back into, in case someone doesn't agree with what I will have to say on the subject, and almost certainly someone will.

Let me make the one further introductory remark that this is intended to be in the nature of a primer on the subject—an attempt to set forth the idea of depreciation so that a small company may gain some idea of what it is and how to use it.

The first concept of the term Depreciation that must be understood, is that it is an operating expense. This concept is based on the idea that everything used in conducting a business wears out, in time, and this gradual loss of value, or depreciation, is one of the expenses of operating the business. For example, if you buy an automobile that can reasonbly be expected to last 5 years, then 1/5 of the auto represents the depreciation expense of operating it for one year. The gas and oil that is bought to run the car during the year is also expense, but this is direct, out of pocket, dollar expense and is widely recognized as such. This is because it is obvious that the wearing out or loss of value in the gas and oil is taking place, since usually the entire cost of the gas and oil is consumed within a few days after its purchase. Really, the only difference between this expense and depreciation expense, is that the depreciation expense takes place over a much longer period of time, and therefore, in most cases, must be estimated.

The second concept that it is necessary to grasp is simply a corollary of the first. If a certain piece of equipment, over a period of time, wears out, loses its value, or depreciates, it is, as time goes on, obviously worth less and less. Thus, the automobile that we buy for, say $2000.00, and that we expect to last 5 years, is really worth only $1600.00 at the end of the first year, $1200.00 at the end of the second, etc., until, at the end of the fifth year, the value is zero. If we accept such to be the case, then our books must reflect the facts. This can be done either by reducing the value at which the automobile is stated on the asset side of the balance sheet of the company, or by setting up an account on the liability side of the balance sheet that will gradually offset the asset value of the automobile.

Since there are advantages to be gained by leaving assets stated at their original cost on the books of the company from the time they are acquired until they are sold or abandoned, the second method is usually employed. It thus becomes apparent that the *net* value of any asset is the difference between the original cost of the asset as set up in the books, less the value accumulated in this offsetting account, which is ordinarily called a Reserve for Depreciation. The original cost of the item is carried usually under the heading of Fixed Assets (assets which will last for a more or less long period of

time). Thus, the Fixed Assets less the Reserve for Depreciation equals the net value of such assets to the company. The FCC System of accounts allows the entire value of the Fixed Assets to be added into the asset side of the Balance Sheet, and the total accumulated value in the Reserve for Depreciation to be added into the Liability side. Most CPA's, however, will insist on showing the Reserve for Depreciation as a direct deduction from the Fixed Assets and in adding into the asset side of the balance sheet only the net value thus obtained. The result is the same in both procedures, provided you know what to look for.

Now, how is all this placed on the records, or books, of the company? In practice, it proves to be a simple entry. The amount of depreciation for the company for a particular period is computed—that is, the amount which the Fixed Assets are thought to have depreciated during the period, and then this amount is entered in the books as follows:

Dr. Depreciation Expense
Cr. Reserve for Depreciation

The Depreciation Expense account is then closed out to Profit and Loss in exactly the same manner as any other expense account of the period, and the Reserve for Depreciation account is left in the books to accumulate over a period of time.

In the case of our $2000.00 automobile example, the Reserve for Depreciation account on the Auto would, at the end of 5 years, have built up to $2000.00. At this point, the net value of the Auto is zero, and, if the five year life assumption was correct, the usefulness of the Auto would also be entirely gone, and the value stated on the books should be removed. This is accomplished by the following entry:

Dr. Reserve for Depreciation $2000.00
Cr. Fixed Assets—Auto $2000.00

This entry reduces the automobile account to zero, and also reduces the Reserve for Depreciation account to zero and the result desired is obtained. Supposedly at this point, a new automobile would be purchased and the process started over.

Thus, the theory of Depreciation is not at all difficult. The difficulty is encountered, especially in a telephone company, in making the *practice* conform to the theory. Three basic factors enter into this difficulty for the usual small company:

(1) Correctly computing the depreciation rate, which in turn, depends on correctly estimating (a) the life of the asset, (b) the comparative salvage value of the asset when its useful life is over, and (c) the cost of removing the asset from the plant. The most important of these three factors is the life (useful life) of the asset.

(2) Setting up the procedures by which the depreciation thus computed is recorded on the books of the company.

(3) Determining and setting up the retirements of property (removing property from plant that is no longer useful, or that is abandoned or destroyed—and recording this on the books).

For the purposes of this article, it can be stated that most companies use an overall or *composite* depreciation rate of from 3¾% to 6% per year. For example, if the total fixed *depreciable* assets of your company are stated on the books at $20,000.00, and your annual depreciation rate is 3¾%, then each year, to record your depreciation, you would make the following entry:

Dr: Depreciation Expense $750.00
Cr: Reserve for Depreciation $750.00

If your rate were 6%, the amount used in the above entry would be $1,200.00. If you figure your depreciation monthly instead of yearly, then the amounts of the monthly entry would be 1/12 of the annual amount. What this depreciation rate should be varies from company to company, from exchange to exchange, and in the same place, from year to year. In a future article, a process for determining what this rate should be in your company each year, will be set forth.

After figuring the amount of the depreciation, it must be correctly entered in the books, and this process has already been briefly described. Usually it is simply a book entry, made originally in the General Journal (or whatever you have that amounts to a General Journal).

The third difficulty encountered is in correctly accounting for *retirements*. The term *retirement* is used when: (1) a telephone becomes use-

(*Please turn to page* 42)

MEDAL WINNERS

NOT ALL THE acts of heroism and high courage are born of the battlefield. In the quiet purlieus of industry men and women perform deeds of devotion and valor which rank with the achievements of a Sergeant York or a Colin Kelly.

Some outstanding acts of bravery are those performed by telephone employees. In recognition of that fact the Bell System established the Theodore N. Vail Memorial Fund in 1920 "to perpetuate his ideals of responsibility for public service." Mr. Vail was a former president of American Telephone & Telegraph Company.

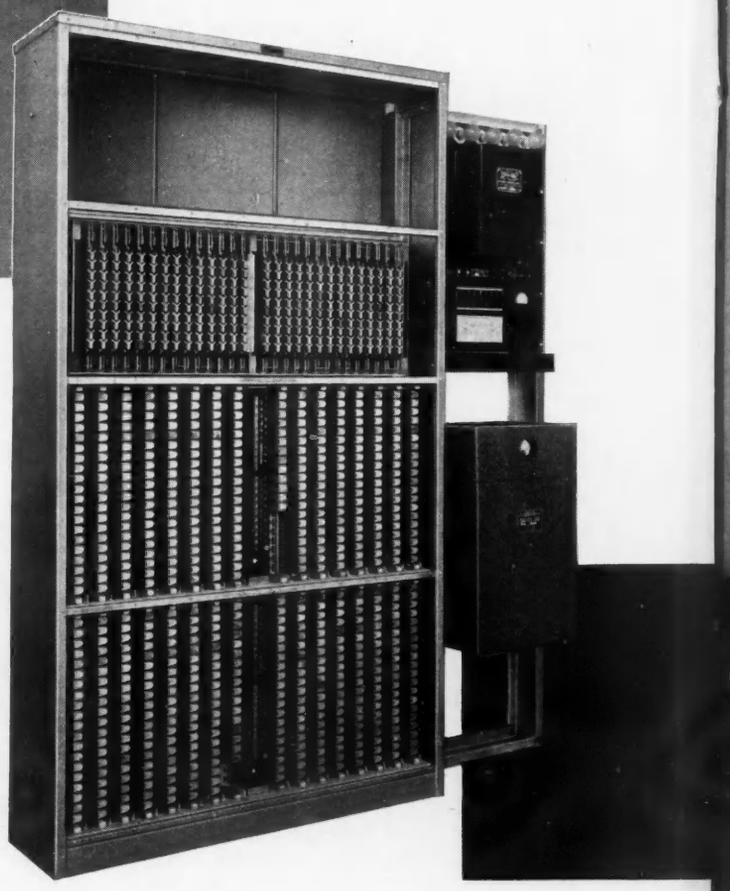
For the past 30 years the Bell System has been awarding gold, silver and bronze medals for employes who have shown exceptional devotion to duty. Silver medals now carry cash awards of $500, gold medals $1,000. Hundreds of such medals have been awarded.

The Bell System recently published a book entitled *For Noteworthy Public Service*, reciting the stirring deeds of these medal winners. Copies of the book itself are a noble testimonial to the intrepid accomplishments they record—a book of typographical beauty.

There is the story of the repairman who slid out on four telephone wires across a foaming river to disentangle the lines and keep communications open. Of the Bell employee who, in pursuit of a gun-wielding bandit, climbed a telephone pole to 'phone the police and effect the criminal's capture. Of the rescuer of a child from a burning building. Of the courageous operator who risked death in the terrible Hotel LaSalle fire of 1946, in Chicago, in order to give warning to sleeping guests. Of the hello-girl who made innumerable calls in quest of a doctor on New Year's Eve in order to save a stricken woman in a lonely farm-house—a quest which succeeded in the nick of time.

The relations of employer and employe are often depicted as coldly businesslike, especially in vast organizations such as the Bell System. But this record of selfless devotion and of warm recognition tells a different story.—*Chicago Journal of Commerce.*

THE LEICH *Dial System*



The Leich Dial System was designed to provide a more practical dial switchboard for exchanges of moderate size.

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First of all, the Leich Dial System is a greatly simplified unit. It's easier to understand and operate. There are no moving mechanical parts to maintain or adjust. All operations are performed by full size, dependable relays. Any good switchboard man can learn the service routine.

Dependable operation for long periods without any attention other than a regular check-up is another advantage the Leich Dial System offers.

Installation of a Leich Dial System costs less and is done more quickly because all the parts are factory-tested and simply jacked-in to the framework at the exchange. A one hundred line board is usually completely installed and ready to cut over in from a week to ten days.

All the parts, including lines and links, can be jacked-in when additions are required. Your own switchboard man can add ten lines to a Leich Dial System in ten minutes. He can add an extra link (connecting circuit) in an hour or two, with no factory installer necessary. This means a considerable dollars and cents savings when adding capacity for the new subscribers who invariably sign up when an exchange is converted to dial.

Practically everything that would make it practical and possible for the small exchange to convert to dial is incorporated in the Leich Dial System. The small buildings on the opposite page are a few of the more than one hundred exchanges now operating Leich Dial Systems.

If a dial conversion is planned for your exchange we will be glad to send you complete information and work with you in every way possible. Leich Sales Corporation, 427 West Randolph Street, Chicago 6, Illinois.

LEICH

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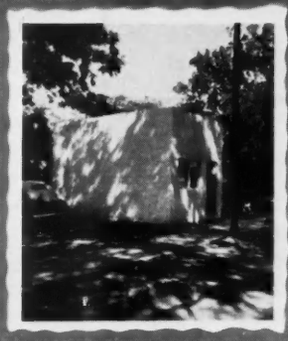

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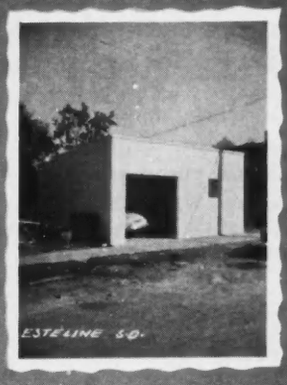

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Small Company

(*Continued from page 39*)

less and is taken out of service and junked; (2) a pole wears out and is replaced (the old pole is said to be *retired* from plant); (3) a telephone is discontinued (in this situation the telephone and drop are said to be *retired from plant.* If either or both are still useable, they are added back to plant when they are again placed in service.

You may wonder just what retirements have to do with depreciation. Directly, as far as the Depreciation Expense is concerned, they have little connection. However, they have a direct connection with the Reserve for Depreciation account. As was explained in the automobile example, when the auto is fully worn out or fully depreciated, it is written off the books by the entry debiting Reserve for Depreciation and Crediting Fixed Assets (Auto).

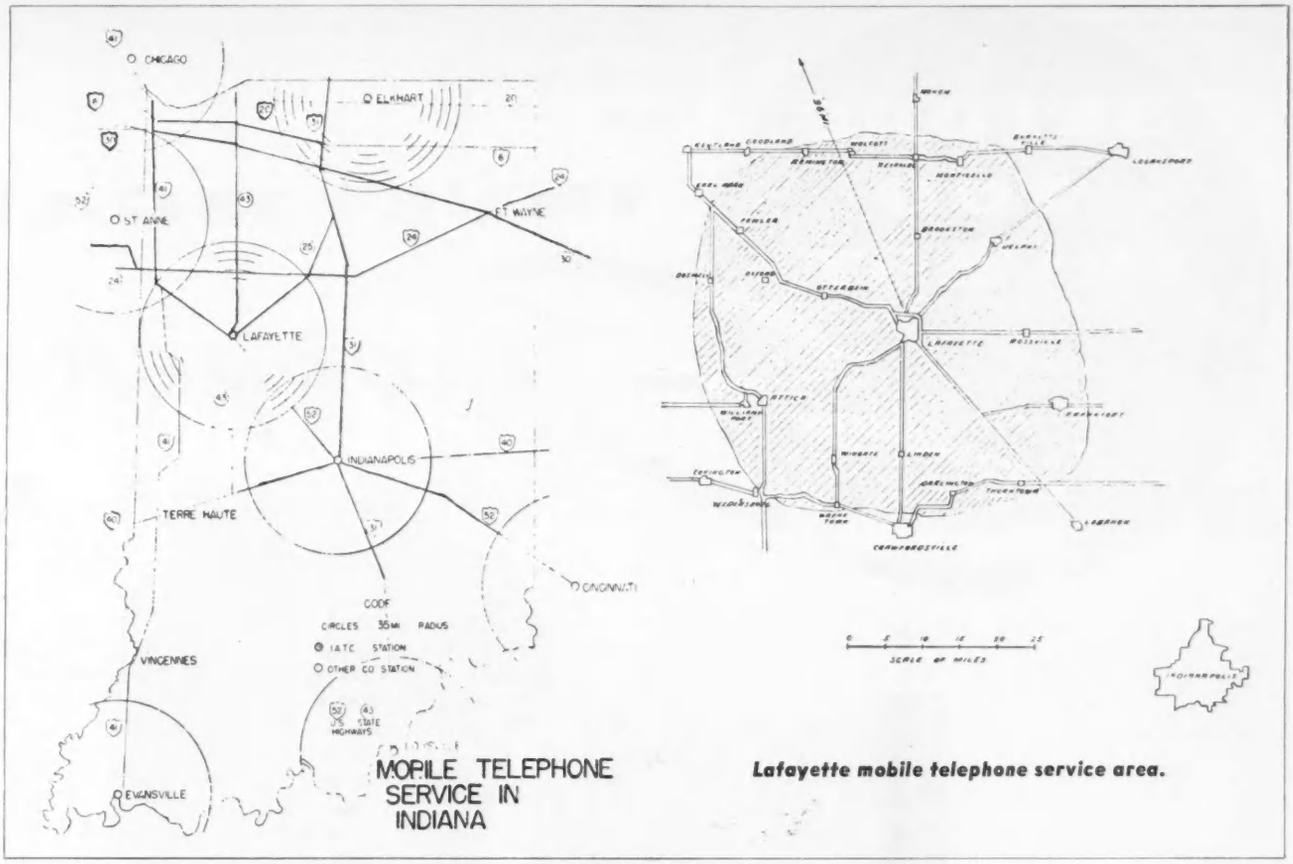
The same idea applies to a telephone pole. When a pole (or any other item of depreciable plant) is removed from service (*retired*) the full value of the pole or other item must be debited to the Reserve for Depreciation and credited to the Fixed Asset account involved. This *reduces* the amount that has been gradually accumulated in the Reserve for Depreciation account. It can be seen, therefore, that, if retirements are not correctly accounted for, the Reserve for Depreciation account will gradually become more and more in error. If retirements are not charged against it, it will gradually build up to unreasonably high figures. If too much is charged against it, it will be reduced to an unreasonably low figure. Thus, in order to keep the Reserve for Depreciation stated at its correct figure, retirements of plant must be correctly accounted for.

This process of accounting for retirements is not an easy job. Essentially, the job involved consists of being able to answer what may seem to be a simple question. Assume that you remove a pole from your plant and throw it away. You must, if you are doing your accounting correctly, remove the value of that pole from your plant asset accounts (fixed asset accounts). The question you have to answer is: *What was the value of that pole?*

In the example of the automobile, the answer was easy to find, because we had one automobile, and it was set up in an account all by itself. But in the case of the pole, we probably have hundreds of poles, not to mention cross arms, hardware, wire, guys, etc., etc., all set up together in one account. The job of determining the value of any one pole, therefore, becomes a problem.

In a small plant, the manager may be able to make some pretty good guesses as to how many poles, etc., he has in his plant, and may, by some figuring, be able to build up fairly accurate values of the different items. But as the plant gets larger and larger, this becomes more and more difficult, and the answers obtained become less and less accurate. The only process I have been able to discover for obtaining reasonable accuracy in accounting for retirements is by the use of some form of a Continuing Property Record. A full description of such a record for a small company was presented as a paper before the Accounting Conference of the USITA annual convention in Chicago last year. This system is simple and adapted for use in the smallest of companies.

The difficulties of depreciation accounting should not deter anyone from going into it, for the process of setting up the depreciation accounts and in following through on them is basic to good management practice. If depreciation is simply ignored, then two misleading factors enter into your financial picture: (1) your net profits are *over* stated (and you pay too much income tax), and, (2) the net value of your fixed assets is also *over* stated and leads you to believe your plant is worth more than it really is. On the other hand, setting up too much depreciation tends to *under* state your profits (thus making it more difficult if you want to get a loan, or sell stock, or get a partner, or sell your business). It also *under*-states your net fixed assets (which has all of the above objections as to floating a loan etc.), and also reduces the rate base on which you have a right to make certain earnings. (Most commissions take the rate base to be the *net* fixed assets, that is, the total fixed assets less the accumulated amount in the Reserve for Depreciation account.) As in many other instances, the middle ground is both the best and safest when you are thinking about depreciation. The results of not keeping any depreciation are so bad, that the difficulties of the job fade in comparison. Depreciation is a prime management consideration, as well as an Accounting consideration, and to ignore it is simply bad management.—THE END.



Lafayette mobile telephone service area.

Lafayette's Mobile Telephone Installation

Edward G. Hall
Transmission Engineer
Indiana Associated Tel. Corp.

THE INDIANA Associated Telephone Corporation, an operating company of the General Telephone System became interested in mobile telephone service shortly after its inauguration in St. Louis in 1946. Although initial indications were that as a revenue producing operation it left something to be desired, it was nevertheless believed that radio was to play an increasingly important part in the telephone industry and that entry into the field of mobile telephone was a step in the right direction.

Several avenues of approach were open to us, however, since the demand for purely local (urban) service in the communities considered for mobile service was not deemed sufficient to justify an installation, it was decided to enter the field of highway service and participate in the general highway coverage plan set up by the Bell System.

As a result of joint meetings held with the Indiana and Illinois Bell Telephone Companies in 1947 relative to providing continuous mobile telephone service between Indianapolis and Chicago, it was decided that an installation at Lafayette, Indiana was a logical choice to provide coverage in the area between Indianapolis, Indiana and Kankakee, Illinois.

Since both the Indianapolis and Kankakee stations were activated prior to the start of construction of the Lafayette station, it was possible to obtain actual coverage data for these two stations and then definitely determine the area to be served by Lafayette to provide continuous coverage with a minimum of overlap area.

The distance between Lafayette and St. Anne, Illinois (the site of the Kankakee station) is approximately 60 miles, while the distance from Lafayette to Indianapolis is approximately 62 miles. A circular coverage of 35 miles was considered as a design for coverage calculations. This coverage would provide continuous service between adjacent areas with an overlap area extending for approximately 5 miles in a line between the adjacent stations as indicated on the associated highway mobile telephone service map for Indiana.

Lafayette Site and Coverage Studies

THE CITIES of Lafayette and West Lafayette are located along the Wabash River and the business sections are surrounded by higher ground, hence the possibility of establishing the transmitter and associated antenna and supporting structure at or on existing telephone company buildings was not deemed advisable from considerations of

(*Please turn to page* 46)

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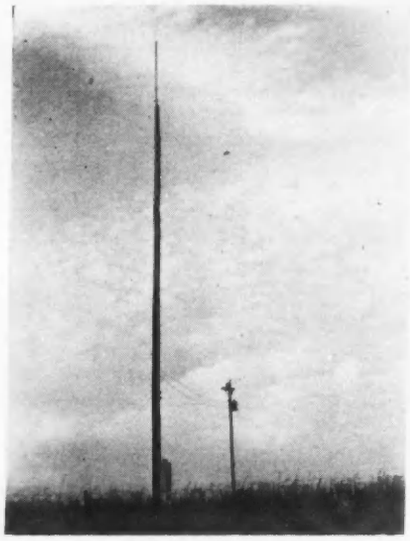
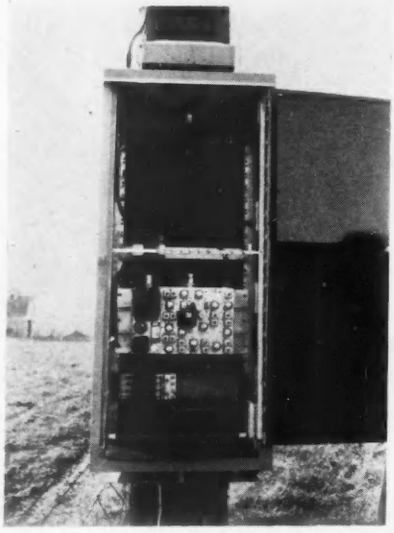


General view of pole mounted fixed receiver and antenna.



Detail view of fixed receiver and housing.

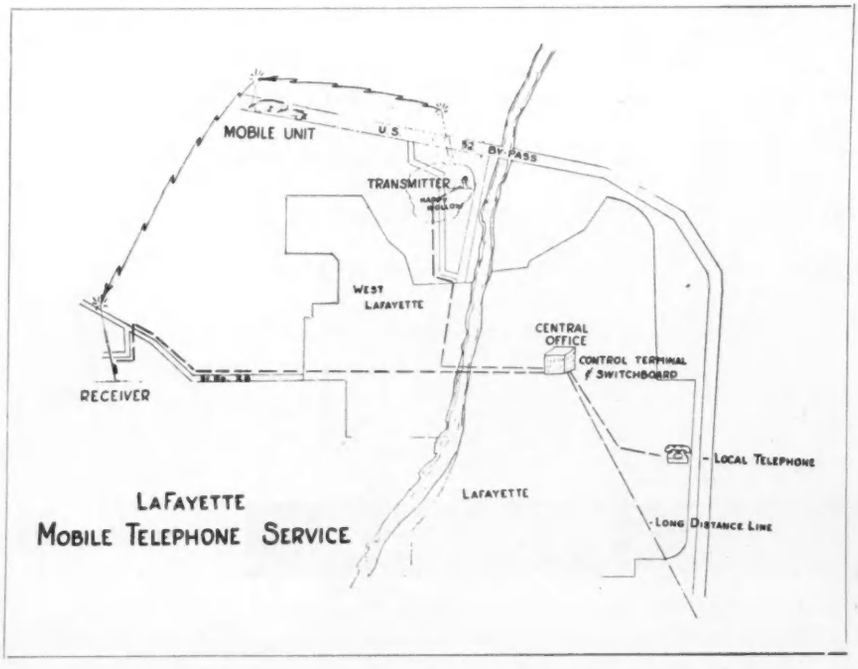
General view of mobile service center, Lafayette, Ind.

cost. The elevation of the existing telephone company buildings being about 100 to 150 feet below the surrounding terrain, the cost of a tower of sufficient height to produce the desired coverage would be prohibitive.

A study was made of several possible plans to locate the transmitter on higher ground thus reducing the antenna height requirements. Since the area directly north of West Lafayette is somewhat higher than the surrounding area, an investigation was made of possible sites and the associated installations required for design coverage at various points in this area. The resultant overall cost figures were studied and a final choice made which resulted in the transmitter being located at the edge of a high bluff some two miles north of West Lafayette business district on land which was leased on a long term basis at $50.00 per year which was less than estimated annual charges on land which was available for purchase. Line facilities were extended over existing plant routes from this site to the radio control center at the Lafayette central office. This particular location was within 20' of the highest point in the area and was sufficiently removed from a nearby State Police radio installation to avoid reaction with their radio services.

A small frame structure approximately six feet (6') square and covered with aluminum siding was erected to house the transmitter and a ninety foot (90') war surplus guyed tower was erected immediately behind the transmitter hut. The cost of this type of construction was relatively low, the entire cost of the building amounting to $480.00 which includes the concrete base and all necessary wiring. It is considered, however, entirely adequate for this purpose.

The two-way coverage obtainable at present is indicated on the associated service area sketch and it is planned, as service expansion warrants, to add additional receivers to extend the two-way coverage to the practical limits of the base transmitter service area.



Equipment Details

THE EQUIPMENTS used for both base and mobile stations are the standard Motorola 250 watt base station and the 30 watt mobile transmitters and receivers modified for

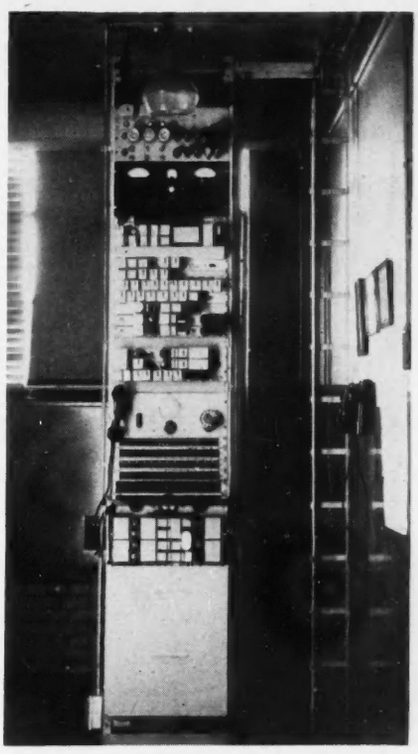
Fixed receiver and housing.

use with Western Electric selector units and control heads. The control terminal consists of a Western Electric Company G-2 terminal equipped with AC operated power supplies. An associated Doolittle deviation and frequency meter does triple duty as a monitor receiver, a frequency and deviation meter and an off-frequency alarm thus saving the cost of three separate units otherwise required. This arrangement has been approved in field inspections by the F.C.C.

The G-2 control terminal is mounted in the Lafayette switchroom adjacent to the testdesk and trunks as necessary are provided between the control terminal and the toll switchboard which in this case, is operated by the Indiana Bell Telephone Company.

Switchmen Hold 2nd Class Licenses

ALL PERSONNEL regularly assigned to duty in the switchroom have obtained restricted operator permits while two men also classified as switchmen hold second class radiotelephone operator's licenses and are directly responsible for the proper operation and maintenance of the base station equipment and for the installation and maintenance of the mobile equipment. Since a licensed operator must be on duty continuously, the switchroom personnel have been assigned the responsibility of maintaining the station log and, to facilitate this full time coverage with maximum economy, monitoring speakers are placed at strategic points throughout the switchroom to permit the switchman to perform his normal duties with a minimum of interruption.



Radio control terminal in central office.

Mobile Service Center

A MOBILE service center has been provided at the telephone company warehouse where floor space is provided for working on subscribers vehicles for installation and maintenance purposes. A work bench, necessary test equipment and tools are provided for use in installing and servicing mobile units. A spare mobile unit is mounted on the work bench for use in checking the operation of defective mobile components as it has been found somewhat easier to make tests on such mobile units by servicing them in a working set-up external to the car in which they are installed.

The cost of this entire installation was approximately $15,500 which figure represents the total investment exclusive of mobile equipment which of course, is a varying quantity. It is believed that all necessary features have been provided in this installation and actual results are in close agreement with those anticipated as a result of calculations.—THE END

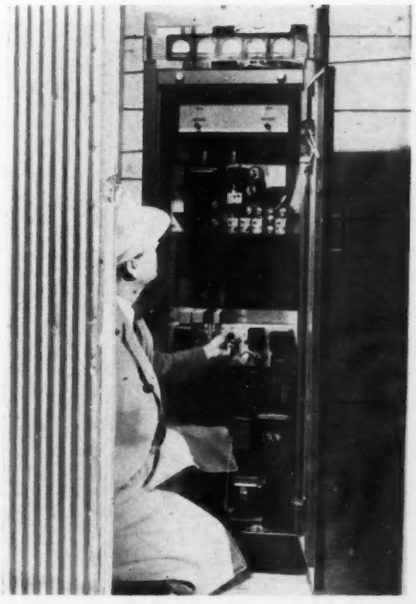
New Company At Gordon, Nebraska

Announcement has been made of the formation of the Nobrara Telephone Co., Gordon, Neb. D. Reynolds is president; Kendall Reeves vice president and J. Johndreau, secretary and treasurer.

Phones Flash As Death Sits At Keyboard

For nearly two hours subscribers cussed the telephone service at Maynard, Mass. They jiggled the hooks without response. Police went to the telephone exchange, found the door locked and broke in.

Slumped over the switchboard where the lights were flashing, was long-time night operator Mrs. Margaret Brennan, 50. She had died at her post of a cerebral hemorrhage.



Interior of base station transmitter showing 250 watt transmitter.

Detail of base station transmitter house.

General view of base station transmitter installation.

A RACE WITH COSTS
The day-to-day costs of providing telephone service have raced ahead in the last ten years. So have the costs of telephone materials and equipment. On the other hand, telephone rates have far from kept pace.
The difference between increases in costs and rates is described in the advertisement on the opposite page. Appearing in national magazines during June, it describes the need for adequate telephone rates, and points out how small telephone rate increases have been.
An advertisement of the
BELL TELEPHONE SYSTEM

We're trying to catch up with costs

Increases in the price you pay for telephone service are far behind the increases in wages and other costs

The price of telephone service has gone up much less than the price of almost everything else you buy. It has gone up far less than the cost of providing the service. Take wages, which are the biggest item, as an example.

Rates Up Far Less Than Wages—The increases granted so far in rates for telephone service are only about half the increases of $728,000,000 in telephone wages during the ten-year period through 1949.

In addition to wages, the costs of materials and almost everything else used in furnishing telephone service have risen substantially.

These things mean higher operating costs. They also mean higher construction costs and hence increase the amount of investment for each new telephone that is added.

Need for Adequate Rates—These are some of the reasons why telephone rate increases are so necessary. The Bell Telephone Companies, however, have not asked nor do they intend to ask for more than is needed to keep on giving you good telephone service — service that improves and expands and grows in its value to you.

A Penny or so a Call — Rate increases so far, plus those now requested, average only a penny or so per call — a small amount compared to the value, security and convenience of the service.

BELL TELEPHONE SYSTEM

Nebraska Commission Looks At A Small Company RATE CASE

By Keith Vogt
Accountant,
Nebraska State Railway Commission

IT HAS LONG been apparent to the Nebraska Commission and its staff that rate cases of small telephone companies cannot be made on a precise and scientific basis. The Nebraska Commission regulates 149 telephone companies and many of these companies are very small. Due to the inhibitions of the war many companies postponed filing for rate adjustments although they were aware, acutely, that costs were rising to unprecedented levels. Therefore as soon as the war was over there was a surge of applications by the small telephone companies to seek rate adjustments at the earliest possible date to prevent them from going out of business and disappearing off the face of the earth. Consequently, in this post-war period the Nebraska Commission as well as other state regulatory bodies, was nearly submerged by telephone rate adjustments.

It was quickly and easily discerned that, in spite of the Uniform System of Accounts prescribed in Nebraska, the small telephone companies needed immeasurable assistance in the preparation of their rate applications. It was found that in most instances managements of the small companies did not possess even the smallest iota of "know how" in preparing, filing, and supporting a rate case. The small telephone company manager has no knowledge of prevalent going rates of return allowed across the country by regulatory bodies and he has no access to, or of, current court decisions on such matters. It was found that applications were either incomplete or a hopeless hodgepodge of opinions, hearsays, and everything else but fact needed to support an adjustment in rates.

In view of this, a rate revision form was drawn up by the Accounting Department of the Nebraska Commission solely designed to assist the small telephone companies which were unable to prepare their own applications. This was done in 1947 and has met with approval not only in the telephone industry in Nebraska, but has prompted inquiry from several other states as far away as Maine and Oregon.

Keep It Simple

THE CARDINAL point to remember in a small telephone rate case is that the whole procedure should be kept as simple as possible. This is no reflection upon the managements of the small telephone companies, but it must be kept simple due to the very nature and structure of their business. They do not have a battery of attorneys and auditors who can prepare a rate case. A justifiable rate increase for a small telephone company, for example one of less than 400 telephones, should be a form and routine where the company can file a complete and effective form. In most cases the rate adjustment has been postponed time and again until the financial situation of the small telephone company has reached the critical stage. Therefore a simple procedure should be available so that the rate case can be expedited as much as possible with a minimum of correspondence back and forth to make the filing complete.

An analysis in Nebraska of a number of small telephone rate cases leads to the conclusion that most of the difficulty and delay in them comes from the failure of the company to present its case in complete form so that the Commission can act upon it promptly and without a disproportionate amount of investigation.

In Nebraska telephone companies under regulation are required to file financial reports whether they are small or large. Of the small locally owned telephone companies, a review of their financial statements indicates that many of them have inadequate revenues and reserves.

This is due to many factors. Many of the small companies were organized forty or fifty years ago by groups of enterprising farmers and the telephone distribution plants were installed with no provision being made in the rate structure to set up reserves for retirement, replacement, depreciation, or anticipation of any kind of rehabilitation. Plant which was new at that time has suffered all of the elements of depreciation and nothing new has been hung up. This plan worked all right for many, many years but all at once these plants have begun to fall down in such large segments that telephone service is actually terminated. All at once these small companies have had to face the stark reality of making very major replacements of units of plant all at once rather than anticipating such replacements on a piece meal basis down through the years. Therefore the problem is nearly insurmountable because additions to telephone plant cannot be used as a basis for obtaining higher rates from any Commission. If the revenues are not sufficient to attract management capital, the telephone company goes on the rocks.

Small Company Assistance

IT HAS been the procedure of this Commission over the past three years to assist the small telephone companies as much as possible in the preparation of a rate case. In the interests of maintaining and retaining the financial integrity of the telephone industry in Nebraska this Commission has adopted a broad plan to expedite such small rate cases.

Many telephone managers actually fear a rate case. It is well known that they must live in their communities with their subscribers and get along with them. Even though the manager of a small telephone company knows that all of his telephone equipment has gone up in price, that the price of groceries has increased considerably, and that his wages and all other items have risen considerably, there is some overpowering

(*Please turn to page* 52)

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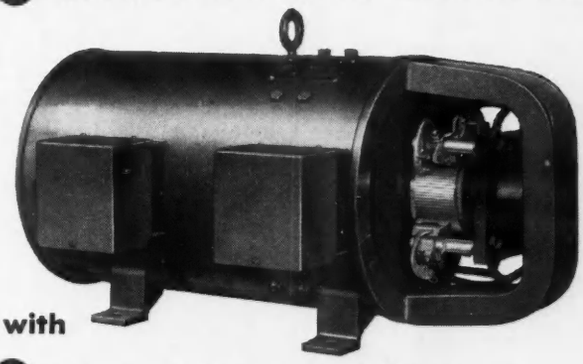
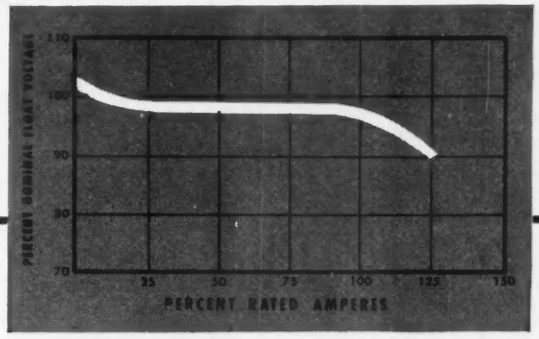
Specify

1 E. P. Diverter-Pole Motor-Generators



with

2 Inherent Constant Voltage . . .



Constant voltage delivered by E. P. Diverter-Pole Motor-Generators serves three important functions:

A—DECREASES RELAY MAINTENANCE. Keeping the voltage from rising too high helps to prevent "slapping" of the contacts that may result in misalignment, pitting and burning, and preserves the sensitive adjustment of the relays. High-coil current . . . with accompanying insulation breakdown, shorting and burning-out . . . is avoided.

B—INCREASES BATTERY LIFE. Operating records of many exchanges show that the E.P. Diverter-Pole Battery Charger increases battery life from six to fourteen years. High battery temperature, excessive gassing, and undue breaking down of the active cell material are prevented to assure the longest possible battery life.

C—IMPROVES VOICE TRANSMISSION. To assure satisfactory voice transmission, the Battery Charger must maintain the output voltage of the battery as close as possible to a constant value. Transmitters may become noisy if they are subjected to an excessively high voltage, and may have to be replaced because of permanent damage.

Write for Bulletin 209

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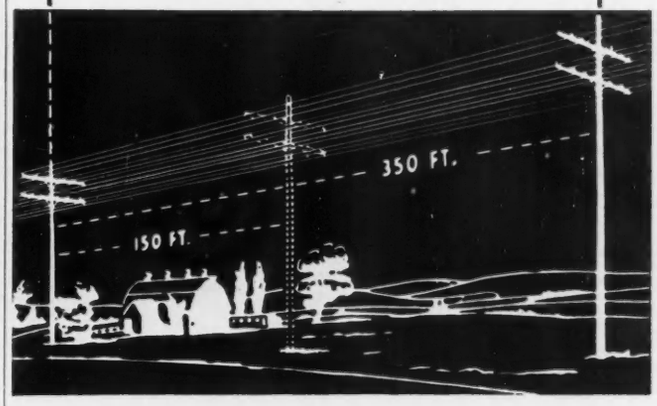
the lower the cost . . .



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THE extra tensile strength of Amertel-135 Telephone Wire permits long span construction . . . and saves you money. Because Amertel-135 has tensile strength 2½ times that of regular BB grade wire, you can cut your pole requirements in half. Fewer poles mean less hauling, less digging, less connecting . . . with appreciable reduction in man-hours. You save on insulators, ties, armor wires, guys and other accessory materials too.

High-strength Amertel Wire will withstand the strain of ice and wind loads. This means savings in maintenance costs, and uninterrupted service for your customers. Amertel has much better voice transmission characteristics than the old steel telephone wire, and it has low electrical resistance, too.

Write for complete technical data on Amertel-135 and its companion wire Amertel-85, and our regular grades "E.B.B.," "B.B." and "Steel."

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It is your assurance
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UNITED STATES STEEL

reluctance to make an upward revision in telephone rates even though the spector of disaster faces the telephone company.

In each and every rate case there are four simple principals or elements. They are:

(1) The cost of supplying telephone service.
(2) The amount of revenue.
(3) The rate base, the investment upon which the company should be allowed to earn.
(4) The rate of return on the rate base.

All controversy no matter what it may be, and litigation that may ensue from it, comes from one or another of these four elements.

Telephone companies in Nebraska are encouraged to maintain their books in as accurately a way as possible so that a complete basis for calculations in a rate case will already exist. It is not easy for a small telephone company to do the bookkeeping of the kind that is necessary to completely, accurately separate, day by day as to every transaction, expense and change in the capital accounts. The difficulty is not primarily of making the entries on the ledgers or other principal books of account, but it is that of obtaining, completely and accurately, the information required from employees to support those entries.

This difficulty comes partly from the fact that the telephone business is one of the few regulated businesses with so many small units in it under different ownership and management and which has so many transactions that affect its capital account.

In its rate revision form the Nebraska Commission asks for the correct name and address of the telephone company as well as the name and title of the person completing the form.

The applicant is asked if it is incorporated and if so, two or three necessary inquiries are made regarding its corporate organization.

The companies are asked to state whether their lines are metallic, grounded, or a combination of both.

The applicant is asked why the rate revision is filed and it is given the opportunity to attach a separate letter and use as much testimonial as is thought necessary to support the rate revision.

Part of the rate revision form is devoted to questions on the several classes of revenue and expense.

A question is devoted to the billing plan so that the new rates may be synchcronized with the billing plan in use so as to make it as easy as possible for the small telephone company.

The form includes a question as to the type of service, meaning dial, common battery, or magneto.

The applicant is required to complete a table of present and proposed monthly rates by classes of service and the number of telephones in each classification together with the net increase in rates per month.

There are still a very few companies in Nebraska which have retained the prompt-payment discount plan. The form includes a question on this subject and if the small company still uses a discount plan, the applicant is required to set forth all rates, present and proposed, on the gross basis.

Not only in Nebraska, but probably in every state where telephone companies are regulated, the applicant may submit letters of testimonial or petitions wherein subscribers all go on record in support of the rate case.

Now we come to the portion of the routine before the Nebraska Commission which expedites rate cases

WAS-WAS FORT WAYNE CLASSIFIED BUSINESS DIRECTORY 214
Washing Machines–(Cont'd)
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BLOOMINGTON & NORMAL CLASSIFIED TELEPHONE DIRECTORY
Cardinal
PAINTS
If You Just Had the Time!
Why, of course you could build up the revenues from directory advertising, you say, if you just had the time to push it. But first things come first.
And that's where your Loomis Directory Specialists help most. They are your full-time representatives. They are long experienced in making the directory a more useful tool . . . a goodwill builder . . . a revenue producer. This gives you full time to run your telephone business. For facts, figures and a full explanation . . .
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for the small telephone companies. When an application is received it is docketed and assigned a consideration date, usually about thirty days from the time the application is docketed when the Commission will be presented the case for consideration. Immediately after the case is docketed a public notice is sent out by the Commission to the public officials, newspapers, community clubs, and any other public bodies, notifying all of these addressees that the telephone company has applied for a rate adjustment. The details of the application are set forth in this notice including the present and proposed telephone rates.

All interested persons are invited to make known their views on the case on or before the date of consideration when the Commission will first be introduced to the case. In this grace period of about thirty days if there are no protests received or objections indicated, the Commission will dispose of the case upon its own merits on an ex parte basis without a public hearing.

It is easy to see that from the foregoing instance a rate increase receives expeditious treatment providing the telephone manager has done a good public relations job in his own home town and that his case has been accurately and meritoriously filed.

On the other hand if objections are received within the thirty day grace period, the Commission then, on the consideration date, sets the matter down for public hearing at a later date providing the protests are in good faith and are accurate.

It should be mentioned that during the grace period of about thirty days the Commission's own staff makes up its independent analysis of the rate case from financial reports on file with the Commission. This is done in time so that the analysis will be available to all of the Commissioners by the date when the case is scheduled to be presented to the Commission.

It has long been recognized that the small telephone companies cannot afford an exhaustive and lengthy and formal hearing wherein it is necessary to hire statistical and legal talent. Here in Nebraska we are convinced that the procedure described herein expedites, simplifies, and reduces the cost of small telephone company rate cases and in the postwar period of an unprecedented number of telephone rate cases this procedure and the Nebraska Commissions's rate revision form has repeatedly proved its use and value.—THE END.

If you've ever been up on a 50-foot stick when your life depends on the quality of the belt and safety strap you use, you will appreciate the high quality and care that is so much a part of all Klein equipment. When life's at stake, there can be no compromise with quality. Old timers know that Klein equipment has stood for quality in linemen's tools and equipment—"since 1857."

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If you have not received a copy of the new Klein Pocket Tool Guide, write for one. It will be sent without obligation.

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Clyde S. Bailey, Washington, D. C., Will Brown, Clyde, and O. D. Small, Abilene, attended recent Kansas convention.

W. C. Wilkin Heads Kansas Association

W. C. Wilkin, Nortonville, general manager of the East Kansas Telephone Co., was elected president of the Kansas Telephone Association during its 50th annual convention at the Hotel Jayhawk, Topeka, May 16-17.

Neis A. Anderson, Pratt, president of the Southwest Telephone Co., was named vice-president. H. B. Couch, Topeka, was named secretary and Fred A. Schneider, district manager of the Southwestern Bell Telephone Co., Topeka, became treasurer.

Elected to a three-year term on the board of directors was George W. Coffin, Council Grove Telephone Co., to succeed J. E. Moore, Ellinwood.

Re-elected to the board were Carl L. Spaid, Kansas City; Carl Kraege, Fredonia, and Clyde Tucker, Pleasanton.

Featured speakers at the first general session on May 16 were: S. M. Hardaway, engineer of the Southwestern Bell Telephone Co., and Robert Willis and D. G. McGrath, members of the State Highway Commission of Canada.

Mr. Hardaway told the convention that long distance calls which now take Kansans one to two minutes to put through will be set up in 20 to 30 seconds, under a new dial system being installed by the Southwestern Bell Telephone Co. He said the long distance equipment would be in operation in a number of cities of Kansas by late fall.

First dial operation in the state will be at Liberal, where equipment is now being installed, Hardaway explained. Next on the list will be Garden City, Great Bend and Salina.

The practically instant operation, by which a call can be put through to a distant city will begin as soon as a seven-million-dollar toll switching system, now being installed in Kansas City, is completed. Tentative date is November.

Speakers at the Tuesday afternoon session were: Ray W. Smith, president and editor, Telephone Engineer Publishing Corp., Chicago, and Irwin Mattick, public information supervisor, Southwestern Bell Telephone Co., St. Louis, Mo.

Mr. Smith told the group that telephone operations face increasing costs and that there is no sign yet when rising costs will reach a peak.

In addition, he said, wage increases recently granted to telephone employees have not yet been felt by the industry. He said he can see no immediate reduction of costs.

Mr. Smith added that so much effort is being expended to keep up with growing demands for service that little time can be devoted to service improvements which are used to sell customers on telephone service.

A feature of the afternoon session was the lecture-demonstration by Mr. Mattick covering many of the tiny components in the telephone system.

From atoms and electrons to telephone calls. Mr. Mattick demonstrated many of the parts that keep the electron, tiniest known building block of the universe, trained on its course when it carries a telephone message across the world by wire and radio.

Speakers at the final session on May 17 were: DeWitt M. Stiles, member of the Kansas Corporation

(*Please turn to page* 56)

D. J. Neale, Topeka, (right) welcomes telephone men to Kansas convention.

100,000th L.T.&T. Phone Installed in Seward Home

The 100,000th telephone operated by the Lincoln (Neb.) Telephone and Telegraph Company was installed recently in the home of E. L. Gorman, of Seward, Neb.

The connection was made by George Miers, veteran telephone installer at Seward, in the presence of company officials and representatives of the state legislature, the state railway commission, civic leaders of Seward and newspaper editors.

The Company began operations in May, 1904, at 231 So. 14th with an initial list of 1,800 subscribers. Frank H. Woods, first president, headed the organization until 1946 when he became chairman of the board of directors and Thomas C. Woods was elected president.

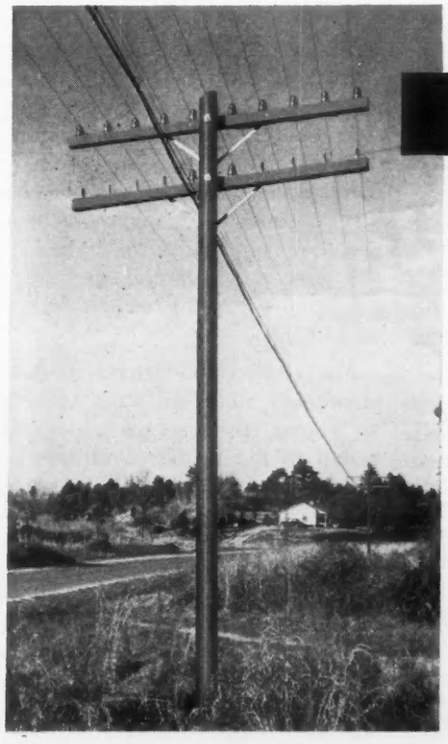
Mr. Woods was among the first of the Independent telephone men to recognize merits of the dial system. The first L. T. & T. telephones installed were of that type.

In the past 10 years the number of telephones served by the company has increased 56 percent. Farm telephones operated by the company have increased 61 percent.

Chairman Harold Palmer of the Nebraska State Railway Commission makes one of the first calls over Lincoln T & T Co's 100,000th telephone from the Gorman home in Seward. Watching are Charles Campbell, president of the Seward Rotary club, and Mayor Wilber Wood of Seward.

Since 1945 the company has spent $6,762,000 for improvement and expansion. This program included construction of 25 new telephone buildings, conversion service from manual to dial operation in 34 towns and an increase of 32 percent in the circuit capacity for long distance calls.

Since World War II the company has put in 34,272 poles and added enough wire to circle the earth.



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Poles produced by Taylor-Colquitt's exclusive vapor drying process are, class for class, 10 per cent lighter than green poles conditioned by steam in the conventional manner for preservative treatment. With less weight is greater strength — so much more that generally vapor dried poles one class smaller than other types will serve. The substantial savings that can be made both in purchase price and installation costs because of these two factors make Taylor-Colquitt Vapor Dried Poles far and away the most economical that can be had.

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Commission; R. C. Reno, editor of Telephony, Chicago; Clyde S. Bailey, executive vice president of the United States Independent Telephone Association, Washington, D. C.; Willard Jones of the Rural Electrification Administration, Washington, D. C., and John W. Johnson of the Wage-Hour Division, U. S. Department of labor.

Pennsylvania Association Holds 48th Convention

No business has "so many opportunities to make or lose friends" as the telephone business, and for that reason good public relations are essential, President Wilfred D. Gillen of the Bell Telephone Co. of Pennsylvania emphasized in one of the highlight addresses at the annual convention of the Pennsylvania Independent Telephone Association in Pittsburgh. Other major addresses came from retiring association President H. M. Engh, Board Chairman of the Pennsylvania Telephone Corp., and Executive Vice President A. C. Herbert of the association, who reported that the Independents in the state had a combined station gain of 11.1% last year.

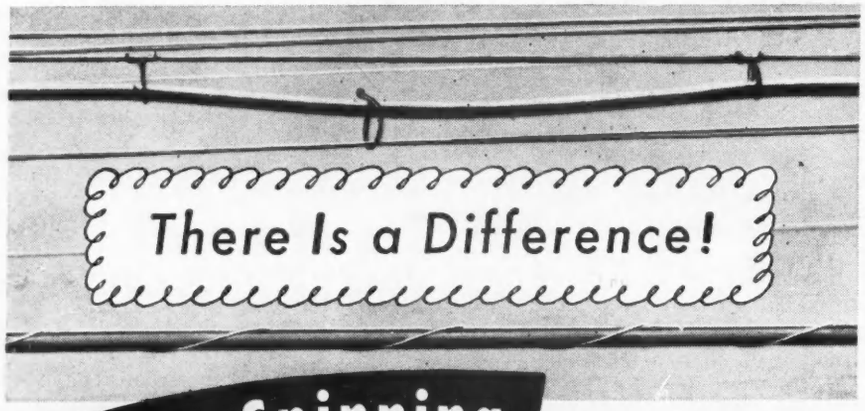
At the convention, the Pennsylvania association named R. A. Smith, vice president Blue Mountain Telephone & Telegraph Co., Bangor, Pa., as president for the coming year. Mr. Herbert was reelected. John M. Horn of Vandergrift, Pa., and Harold G. Payne, Vandergrift were named vice presidents. G. B. Rudy, Jr., President, York Tel. & Tel. Co., York, Pa., was reelected treasurer, and Miss M. Ethel Cunningham, Harrisburg, was reelected secretary.

Directors of the Pennsylvania association are: C. E. Eaby, Ephrata; Mr. Payne; Mr. Rudy; Mr. Smith; J. K. Stoltzfus, Birdsboro; L. R. Thurston, Harrisburg; B. H. Cravens, Meadville; Mr. Engh; A. M. Gibson, Sheffield; Mr. Horn and A. N. Seward, Butler.

In his talk, Mr. Gillen reviewed the major public relations problems of the telephone industry in recent years, including held orders and upgrading requests, service affected by overloads, rate increases, labor problems, and excise taxes. He also stressed the value of economic education, both for the public and employees, pointing out that many members of the public think that business makes 50% profits, and that even the 10% the public considers low would be "out of sight" for telephone companies. He emphasized, also, that a recent public opinion survey showed that only 7% of those surveyed knew there was an excise on telephone service, and that apparently many people do not realize the U. S. Treasury gets a substantial part of the money they pay for telephone service each month.

Mr. Engh listed federal rural telephone and minimum wage legislation as among the factors which have added to the problems of telephone management, already far more complex than it had been expected they would be five years after the close of World War II. He urged the companies to do everything possible to expand their rural coverage and liberalize their rural service tariffs.

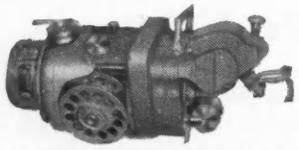
Mr. Herbert said he was reporting a reduction in the number of held orders for the first time since the war. The current total is 34% less than a year ago, he declared. He added that "With about 90% of Bell exchanges on a current basis, we must show an even greater improvement in the immediate future."



Cable Spinning Protects Your Outside Plant

You can **see** the difference! Records of independent telephone companies from coast to coast ***prove*** the difference—spun cable protects your plant investments . . . reduces maintenance costs as much as ⅔!

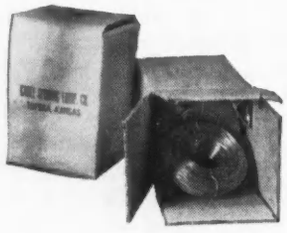
That's why more and more telephone companies everywhere are specifying spun cable for new construction and line maintenance.



Cut Maintenance time, speed new lines—equip your crews with Neale Model D Cable Spinner.

You, too, will find cable spinning lengthens plant life . . . lowers maintenance costs . . . cuts line outages.

Cable spinning is fast, economical, practical when your crews are equipped with Cable Spinning Equipment Company tools designed especially for the job. There's a complete line to choose from.



For BEST RESULTS use NEALE WIRE!
Available in 7 different types, Neale Spinning Wire meets the toughest construction and corrosion problems.

WRITE OR PHONE your jobber today for complete information on how Cable Spinning Equipment Company tools can protect your plant investment.

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Make Better Special-Purpose Splices

Nicopress sleeves are available in 13 different combinations for electrical and mechanical splices including sleeves for spinning wire, dead end wire and other special applications. It's easy to make Nicopress special-purpose splices. Simply insert each end of wire in Nicopress sleeve and compress with handy Nicopress tool. You get a permanent tight splice that requires no further attention. Use Nicopress sleeves for all splices.

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Locust wood is practically impervious to decay and is impenetrable to moisture. Because of its close-grained hardness locust can be machined into strong, long lasting pins of standard specifications that can be counted on to retain their size and shape.

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Oak pole brackets of unquestioned quality are in demand now as never before in the face of the qualifications necessary in the equipment and materials needed today to "keep 'em talking." Present day maintenance and repair have every reason to demand and get only the best.

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Research and experiment have produced in Hemingray insulators a glass insulator that is better than any ever before offered.

Non-porous, non-deteriorating, uniform coefficient of expansion and high mechanical as well as high dielectric strength are some of the many qualities that rank Hemingray the "best on the line."

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This new Automatic Electric Type 20 Substation Protector provides complete protection against every type of danger potential. Its carbon-to-carbon discharge surfaces, very accurately spaced, provide full and permanent protection at all times. The one-piece heavy porcelain base assures ample spacing between terminals, and between discharge blocks and fuses and terminals. Geometric centering of discharge blocks provides greater mechanical strength and greatest effective dielectric strength. The removable hot-dip galvanized cover has ¾" clearance—a further safeguard against high potentials.

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R. D. Pontius Heads Indiana Tel. Association

Meeting at the Claypool Hotel, Indianapolis, May 3-4, members of the Indiana Telephone Association enjoyed a "top flight" convention program that rated high in interest and attendance.

Directors re-elected by the convention are: R. V. Achatz, Aurora; C. D. Ehinger, Decatur; W. J. Scheidler, Greensburg, and Lamar S. Stoops, Nappanee.

Officers elected are: President, R. D. Pontius, Rochester; first vice president, R. E. Brookbank, Pendleton; second vice president, C. E. McCormick, Terre Haute, and W. H. Beck, Indianapolis, secretary-treasurer.

The convention drew more than 600 telephone officials and personnel from all parts of the state.

President Pontius opened the meeting on May 3. This session featured a discussion of telephony in the 1940's and 50's led by Charles D. Ehinger, general manager of the Citizens Telephone Co., Decatur.

Dr. E. L. Butz of Purdue University and Harold V. Bozell, president of General Telephone Corporation and president of the United States Independent Telephone Association were principal speakers at the luncheon May 3.

Mr. Bozell told the luncheon guests that the telephone excise tax is unfair to the industry and should be cut entirely off local calls and reduced on long distance service. He asserted such services as local transportation and many others do not have the Federal excise tax burden now carried by the telephone industry. He reminded that a telephone company must collect $1.61 for every dollar it gets itself. The 61 cents is made up of corporate taxes.

Dr. Butz emphasized in his address that it is "the philosophy of work" which has made America great and he deplored work stoppages "for trivial reasons" such as experienced in the major industries in the present period.

Comparing the productivity of America with European countries, Dr. Butz called for revitalized effort to increase markets, to widen distribution and to provide an even higher standard of living for the next generation.

The Indiana meeting also featured Commercial and Traffic Conferences on May 3 and 4. R. F. Lucier, Warsaw, welcomed conventioners to the first conference session on May 3, and introduced Mrs. Elsie Mitchell,

chief operator, United Telephone Co., Franklin. Mrs. Mitchell served as conference chairman and presented the following speakers: Miss Loretta Pesch, Plymouth; John A. Harbaugh, Sullivan; Mrs. Dorothy Shepherd, Indianapolis.

Speakers appearing at the final conference session were: R. D. Lancaster, Indianapolis; Edward J. Ford, Ft. Wayne; Willis B. Conner, Jr., Indianapolis.

The conference also featured a trial by jury—"Toll Center vs. Tributary"—staged by representatives of the Indiana Associated Telephone Corp.

Appearing as the distinguished judge was C. F. Parrett, of Angola, complete with "rag mop" wig, a croquet mallet gavel, and sombre robe ornamented with tigar clips. A noisy entrance with blasts from a toy pistol was made by R. C. Armstrong, the bailiff, arrayed in officer's uniform with a huge badge and trusty saber. The court was called to order and eleven surprised members of the audience were subpoened for jury duty to serve with W. H. VanHorn, jury foreman.

The oath having been duly administered to the jury to the tune of a series of operating code phrases, Mrs. Lillian Kurzfeld, Goshen, chief operator, presented the case for the tributary plaintiff. Her witnesses were Mrs. Vesta Dick from Wakarusa, Mrs. June Loney from Dunlap, and Miss Adeline Packard from Middlebury.

After a brief recess, during which the judge politely munched an apple and the jury foreman had to be awakened, the trial resumed. The defense attorney, Miss Lois Blohm, called to the witness stand Miss Jane Elliott from Goshen, Mrs. Gertrude Carlson from Elkhart, and Miss Catherine Hight from Laporte. Completing the testimony was a demonstration showing the difference between handling calls on a CLR and on a non-CLR basis.

R. Karl Honaman, director of publications for the Bell Telephone Laboratories, addressed delegates at the final convention on May 4 and discussed "Frontiers of Telephony."

Chas. F. Vail Heads North Dakota Association

Charles F. Vail, Milnor, N. D., was elected president of the North Dakota Telephone Association during the group's 42nd annual convention at the Gardner Hotel, Fargo, May 16-17.

He succeeds W. G. Matson of Stanley, who was renamed a director along with John Nilsen, of Nome, and Joe Wilhelmi of Starkweather.

Mr. Wilhelmi was elected vice president and A. J. McInnes of Fargo was re-elected secretary-treasurer. About 100 were registered at the two day meeting.

The convention featured addresses by Mr. Matson and J. R. Kennedy of Fargo, public relations officer for the North Dakota Railway lines, and a panel discussion on accounting led by Harold Bollinger of Waconia, Minn., general manager of the Red River Valley Telephone Company. Gerald Cass of the North Dakota Public Service Commission was principal panel speaker.

ASA Issues Awards To Standard Council Members

American Standards Association has announced awards to members of its Standards Council who have served more than a year. Honorary certificates were given in recognition of their work in the development of industrial standards. These men rep-

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resent trade associations and technical societies, and more than half are employed by manufacturing firms in many industries.

Among these in the telephone field who were honored are L.W. Hill, president, Carolina Telephone and Telegraph Company, Tarboro, North Carolina, representing the United States Independent Telephone Association in the Telephone Group; C. M. Mapes, transmission engineer, American Telephone & Telegraph Company, N. Y., representing the Telephone Group; F. K. Glynn, American Telephone & Telegraph Company, New York City, representing the Society of Automotive Engineers; Morris H. Cook, director of systems engineering, Bell Telephone Laboratories, Inc., New York City, representing the Telephone Group; J. R. Townsend, materials engineer, Bell Telephone Laboratories, Inc., Murray Hill, N. J., representing the American Society for Testing Materials.

Fred T. Madsen Joins Calif. Water & Tel. Co.

Fred T. Madsen resigned from the Federal Telephone & Radio Corp., on May 1, 1950, and was appointed a vice president of California Water & Telephone Co., West Coast Telephone Co., and The Southwestern States Telephone Co., with headquarters in San Francisco.

Mr. Madsen brings to these organizations a wide knowledge of the telephone business gained during 40 odd years of practical experience in both the manufacture of telephone equipment and operation of telephone companies.

After finishing college, Mr. Madsen entered the telephone business at Tacoma, Wash., installing dial equip-

FRED T. MADSEN

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1 **TOUGH**
Nylon thread used for the covering of these cords provides a superior tough outer braid capable of hard service.

2 **DURABLE**
Switchboard cords are subject to severe wear. Nylon covering gives long and exceptionally satisfactory service under hard usage.

3 **WATER-PROOF**
Chemists recognize Nylon as a material highly resistant to moisture and acids.

4 **MILDEW-PROOF**
Where mildew is likely to occur these Nylon cords are immune to its destructive action.

5 **RUGGED**
The unusual tensile strength of Nylon provides a ruggedness far beyond other types of cords.

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The very name Nylon suggests beauty, quality and refinement. These cords live up to the name in every respect.

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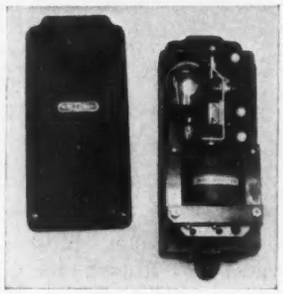
Never before has a machine been produced to deliver ring power at this extremely low price.
It's the TELERING
at only $34.50



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Size: 4"x4½"x10, shpg. wt.: 8 lbs.
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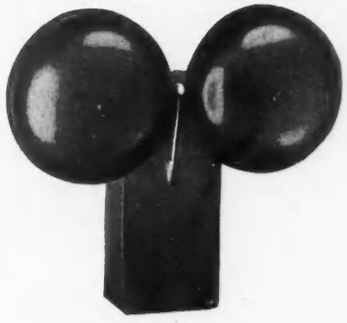

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ment and was employed by the Automatic Electric Co. and affiliated operating companies until 1941. With this organization he worked on the installation, maintenance and development of dial equipment and also was chief engineer of the Cuban Telephone Co., and for 12 years vice president and general manager of Compania Domincana de Telefonos in the Dominican Republic.

In 1941 Mr. Madsen joined the International Telephone & Telegraph Company in an engineering capacity and was later transferred to the Federal Telephone & Radio Corp. as a sales engineer.

10 Cent Paystation Service Initiated at Rochester, N.Y.

Acting under authorization recently granted by the Public Service Commission of the State of New York for the adoption of a 10-cent rate for local paystation calls, the Rochester Telephone Corporation on May 15 began conversion of its Gray paystations to provide for a deposit of a dime for the initiation of the call. The Rochester Telephone Corporation is believed to be the first telephone company in the United States to put the 10-cent local paystation rate into effect.

Apparatus for the conversion of each paystation, consisting of a new cover for the coin chute, a rejector relay assembly, a condenser, and connecting wires, is being supplied by Automatic Electric Company as a result of a development originated by Mr. J. R. Dewar of the Rochester Telephone Corporation and worked out by Automatic Electric in collaboration with the Rochester company's engineers.

Under the plan adopted by the telephone company, a paystation call cannot be initiated with any coin having a denomination of less than 10 cents. A call to long distance will result in the return of the initial coin and subsequently any combination of nickel, dime or quarter coins can be deposited to cover the toll charges as specified by the operator.

Conversion of the automatic paystations was begun on May 15, continuing at the rate of about 150 per day. After conversion, each paystation is arranged automatically to refund nickels through the "coin return" chute. Dropping a 10-cent piece in accordance with information posted at each paystation brings in dial tone, after which the call may be dialed in the usual manner. When conversion of all automatic paystations has been completed, the man-

WHAT DO YOU PREFER for DROP WIRE?

Paragon, one of the earliest suppliers of drop wire to telephone companies, offers a complete selection of conductors—and each in either of two types of protection.

In ordering from Paragon you can pick your preference.

Paragon H. T. Bronze
No. 17 B&S gauge
A High Tensile B.B. Bronze with rated 80% conductivity. It is very strong—with a rating of 90,300 P.S.I. minimum. A strong servicable drop wire—available in twisted or parallel pair in Paraprene or Weatherproof braid protection.

Paragon Copperweld
No. 18 B&S gauge
One of the most popular conductors because of its strength and workability. Conductivity rating is 30%. Strength rating 133,000 P. S. I. minimum. Available in twisted or parallel pair in both Paraprene or Weatherproof braid protection.

Genuine IRONITE
18 or 19 B.W.G. gauge
The old popular iron conductor—protected by modern "Flozinc" process, plating. Offers strength, conductivity and workability with economy in cost. Available in twisted or parallel pair in Weatherproof braid protection.

The life of a drop wire depends largely on the weather protection. All Paragon "drops" are offered in either—

Paraprene Insulation
A specially processed rubber insulation that really adheres (sticks to) the conductor—encased in a seamless sheath of Paraprene. This is tough, weather and wind resistant. Not affected by heat, cold, high alkali wind, moist salt fogs, oil, acid, etc. A most satisfactory insulation.

Weatherproof Braid Insulation
The same specially processed rubber with high adhesion to the conductor, is encased in a woven braid of long staple cotton and mineral fibers that are tough and weather resistant. Impregnated and finished with hot stearine pitch and powdered mica, this insulation (U.R.C. Spec.) resists hot dry wind or damp salt fog, heat, cold, etc. The old dependable insulation — much improved.

All Paragon Drop Wire is packed in approx. 1000 ft. coils in heavy individual cartons.

Paragon also offers a complete line of Interior, Duct, Jumper, Ground and Tree Wire available for prompt shipment

PROMPT SHIPMENTS from CENTRALLY located factory—SYCAMORE, Ill.
Write for samples and prices.
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ALL the strength and durability inherent in steel are combined—with definite economies—in *Crapo* Galvanized Steel Strand. Heavy, ductile, tightly-bonded zinc coatings, applied by the famous *Crapo* Galvanizing Process, provide lasting protection against corrosion.

Ask the distributor of *Crapo* Galvanized Products near you or write direct for further information!

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Waterproofs Inside Basement Walls

. . . below ground, even against hydrostatic pressure. It is a colorless liquid that is mixed with sand and cement.

Stops water seepage in concrete basement walls and floors, elevator pits, underpasses, tunnels, etc.

Produces weather-proof, oil and grease, acid and salt-water resisting concrete.

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ual paystations will receive similar conversion treatment, thus making it necessary thereafter for the subscriber to deposit a dime to signal the operator.

Officials of the Rochester Telephone Corporation have expressed great satisfaction with the results obtained thus far from their paystation conversion program, and with the smooth and efficient operation of the converted equipment. They report also that the plan is meeting with excellent cooperation on the part of the telephone using public.

Ind. Associated Advances Miller and Counsman

H. E. Hussey, president of Indiana Associated Telephone Corp., announced in Lafayette, Indiana his appointment of Robert R. Miller, secretary-treasurer, to the position of general commercial superintendent of IATCO to replace H. J. Huether, Jr., now president of the Ashland Home and Lexington Telephone Companies in Kentucky.

At a meeting of the Board of Directors of Indiana Associated Telephone Corporation on April 26, 1950 Harry G. Counsman of the General Telephone Directory Company in Crawfordsville, Indiana was elected secretary-treasurer of Indiana Associated Telephone Corporation to replace Mr. Miller.

Mr. Miller began his telephone career as a junior engineer for the Lexington Telephone Company in 1929. After several years as a junior engineer Mr. Miller became Assignment records clerk and later was warehouse supervisor.

In 1939 Mr. Miller resigned to accept a position as construction su-

ROBERT R. MILLER

HARRY G. COUNSMAN

perintendent of the Shely Construction Company of Lexington and later accepted a position as senior telephone engineer of the Public Service Commission of Kentucky where he did accounting and engineering work for the commission.

In May 1945 Mr. Miller came to Lafayette and established the continuing property records department and in 1948 he was made supervisor of the property records section and plant accounting department.

In January 1949 Mr. Miller was elected secretary-treasurer of the operating companies of the East Central Group.

Mr. Counsman started in the telephone business in 1930 as a clerk in the revenue accounting department of the Northwestern Bell Telephone Company in Omaha, Nebraska. In 1933 he went to Erie, Pennsylvania to become manager of the revenue accounting department of the Pennsylvania Telephone Corporation and affiliated companies. In 1943 he transferred to the commercial department as district commercial manager of the Erie District.

In 1946 Mr. Counsman was transferred to Springfield, Illinois as commercial superintendent of the Illinois Commercial Telephone Company. In January 1949 he transferred to General Telephone Directory Company as assistant Publishing manager in charge of the Crawfordsville publishing office of that company.

So. Dakota Company Granted Franchise

At the recent regular city election, V. L. Bradley was granted a franchise to operate a telephone system in Menno, S. Dak., by a 97% affirmative vote.

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there's a good reason for choosing the

CHANCE STEEL 8-Way Expanding Anchor

Here's what the men who buy and use them say: **Linemen**—"We don't have so much weight to carry."—"It takes fewer licks to expand."... **Foremen and Construction Superintendents**—"We do save some time and labor."—"There's no danger of breakage."—"We can tell when this anchor is expanded."... **Storekeepers**—"They're easy to handle."—"Your colored identification tag is a big help."... **Engineers**—"We can depend on the uniformity of steel."—"You've taken full advantage of all the area."—"Our tests show it has surprising strength."—"The cone shape is a good idea—you get a wedging action."... **Purchasing Agents**—"Any time we can satisfy ourselves on quality at a price we like—we're happy."... **Management**—"We've seen convincing proof that our lines are going to stay put with your 8-Way in the ground."...Whether you represent one or a combination of the men above—there's good reason for choosing the Chance 8-Way Expanding Anchor...You get more for your money.

You know it's RIGHT when you specify CHANCE

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ABC INDUSTRIES

Money Markets

(Continued from page 33)

holders; of this amount these other stockholders subscribed for only 8,822 shares, or a little more than one-fourth of the shares to which they were entitled; the unsold balance of 24,963 shares were withdrawn from registration. Pacific Telephone & Telegraph did better: the total offering was 814,694 shares, of which the parent company took its quota of 728,909 shares, with 85,785 for the other stockholders; these other stockholders took all but 3,392 shares, which were withdrawn from registration. The difference in earnings and dividend rates being paid should be noted; Mountain States was paying only $6.00 per share, Pacific Telephone $7.00 per share.

Electric and other utilities did very well. Some of the notable sales of common stock were: in March, Pacific Gas & Electric $49,634,630, Equitable Gas (Pittsburgh) $48,500,000, Kansas City Power & Light $22,848,000, Cincinnati Gas & Electric $15,586,600; in May, Toledo Edison $36,918,000.

Prices realized for these new common stocks indicated little or no recent change in the cost of common stock money for telephone utilities, but such new capital was obtained at costs lower than those prevailing a year or so ago. Only two of the companies listed for common stock in *Table Two* also sold commons in early 1949: Peninsular Telephone, which in May sold its new issue at 40 (market then 44) against 38 the year before, and Southwestern States Telephone which offered new common at 12.75 against 10.00 last year. It should be noted that Southwestern's 1949 offering, with dividend at 50 cents per share, was a failure, and that the 1950 offering was with dividend at 80 cents.

The high dividend yield basis of 9.00% for the Cincinnati & Suburban offering in May is artificial; the stock was offered at its par value, $50 per share, when selling on the Cincinnati Exchange around 70.

Trading markets in common stocks were not discouraging to the success of these telephone and electric offerings, but the underlying conditions were not so encouraging as the reports of them might suggest. The common stock average prices which are widely and regularly published, such as the Dow-Jones, for example, showed a fairly good rise over the three months, but the net advance was limited to a comparatively small number of issues, most of them of old established high grade industrial corporations. A study made at the end of May showed that approximately 40% only of the common stocks listed on the New York Stock Exchange were selling higher at the end of May than at the end of February, and this failure to register further net gains after the eight-month rise to February was more pronounced among the utilities than the industrials. None of the independent telephone commons made any net gain, some of them even showed small declines, such as Cincinnati & Suburban and Peninsular, although some Bell system stocks did make a little progress, such as Mountain States Telephone from 98.50 to 101.50 and Pacific Telephone & Telegraph from 104.00 to 111.00. American Telephone & Telegraph itself moved up from 150.00 to 161.00.

Electric utility commons presented a similar picture. On the New York Stock Exchange are listed the common stocks of twenty-five so-called metropolitan electric utilities; of this number only seven were selling at the end of May higher than at the end of February, in three of these cases the gain was as much as 10%. But many of the issues declined. Most of the stocks in this group made their highs for the year to date in January. Of the smaller concerns, out of twenty stocks of companies with annual revenues of from $10 million to $25 million, only five companies made any advance, and only one of these as much as 10%. Few companies with revenues smaller than those mentioned have their common stocks on the big board.

In other words the reports of average price advances in common stocks during the last three months were somewhat misleading, because the advance was in fact extremely selective, it took place mostly in the first grade common stocks that are bought by investment companies and mutual funds, pension funds and the like, while in other stocks the long 1949-1950 rise appeared to have flattened out. And even among the investment companies and mutual funds there was some selling of stocks which had been heavily bought during the second half of 1949, stocks for instance such as General Motors, Standard Oil (N. J.) and others.

But it has been a good time to sell new issues of utility common stocks, and looks as if it still will be for a while.—THE END

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No need to remove a damaged stud . . . no time-consuming backsawing, drilling or re-tapping. Slip this ingenious tool over the mutilated stud, bolt or shaft, tighten the cutting jaws, give a twist or two—and presto! flats smooth out, threads emerge slick and clean.

For right or left-hand threads with root diameter from ¼" to 4". Separate cutting dies not needed—the adjustable cutting jaws are set on the bolt and locked there by a nut on the knurled handle. Three sizes:

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No. 6104—1" to 2 9/16" root diameter
No. 6106—2" to 4" root diameter

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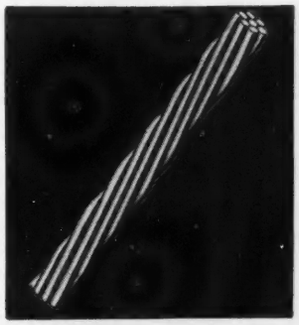
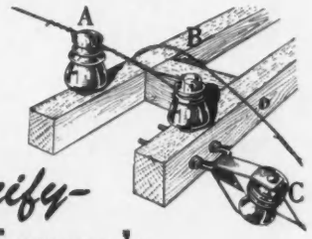
The all-round dependability of *Crapo* Galvanized Steel Strand is being demonstrated constantly by its outstanding performance in service. There is a size and grade for all practical needs.



LONG LIFE—LOW COST

for dead-ending spans of 300 to 400 feet



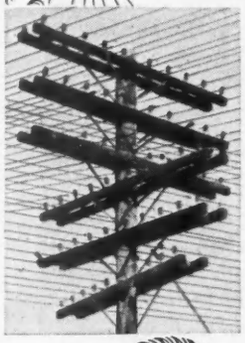
specify- hemingray's No. 110 insulator

This new insulator was designed to conform with specifications of the Association of American Railroads, for clevis-type dead-ends on spans of 300 to 400 feet. In the sketch above, "A" and "B" are Hemingray's No. 43 and 45, and "C" is the new 110.

The triple upper-skirt rings produce very low leakage. And leakage to lower clevis arm is reduced to a minimum by the exceptionally deep petticoat.

Packed: 40 to a carton, weighing 49½ lbs. A product of American Structural Products Company.

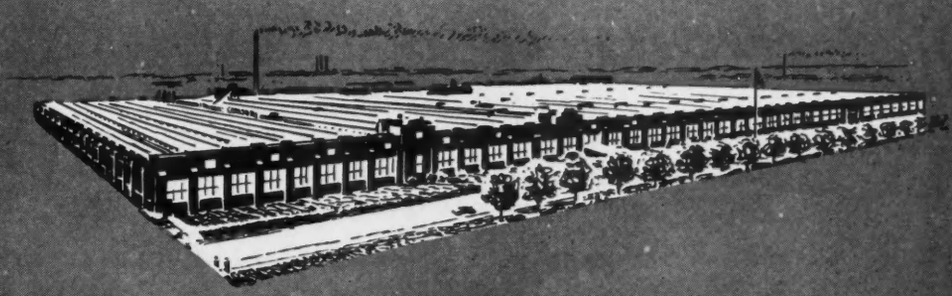
"dependable" *means both the trade-mark & the guarantee of cross-arms by* American Cross-Arm Inc.



The finest pole and wire installation is useless if cross-arms fail. "Dependable" Cross-Arms are all that the name implies—made of sturdy, American woods, long seasoned, fashioned and finished to stand every weather condition from desert heat to mountain blizzards.

In Douglas Fir—Creosoted Yellow Pine or Gulf-Red Cypress.

RG-CARLSON



Factory, General Offices: Rochester 3, N.Y.
Branch Offices: Atlanta 3, Chicago 6, Kansas City 8, San Francisco 3. In Canada: Stromberg-Carlson Co. Ltd., Toronto

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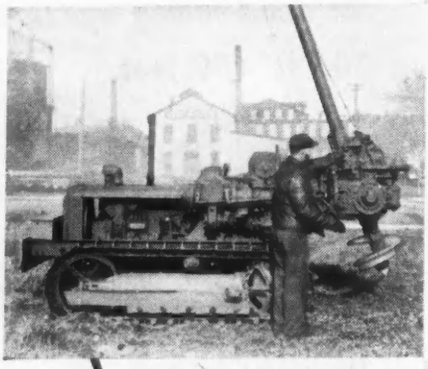
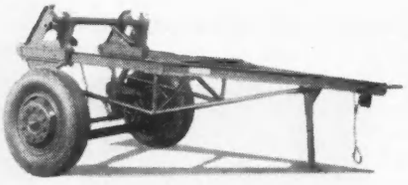




Here's your number one source for your service equipment

Whatever your service equipment needs and requirements may be, Highway offers reliable answers.

Now this is particularly valuable, with Highway's stepped-up production facilities, expanded engineering department and aggressive management working for you. It will pay you to use Highway as your number one source of supply.

HIGHWAY TRAILER COMPANY

HEADQUARTERS: EDGERTON, WISCONSIN

PLANTS AT EDGERTON, WISCONSIN • STOUGHTON, WISCONSIN • CINCINNATI, OHIO

Manufacturers of Utility Truck Bodies • Earth Boring Machines • Pole and Cable Reel Trailers • Winches • Power Take-offs • Service Accessories

Portable Gas Torch With "Cartridge Refill"

The new Otto Bernz LP (Liquefied Petroleum) Gas Torch is said to be the only completely portable, instant lighting, "Cartridge Refill" hand torch that burns in both cold or warm temperatures. According to the Otto Bernz Co., the torch is highly efficient, economical, and equipped with interchangeable burners expertly

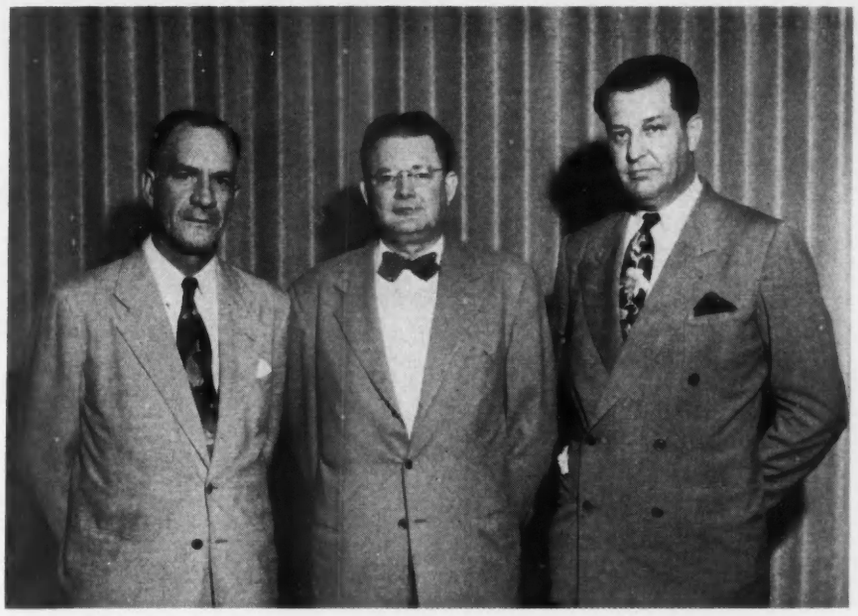
New Otto Bernz Liquefied Petroleum Gas Torch with Cartridge Refill Feature.

designed to suit special needs. It is available, already loaded, ready for use. The manufacturer states that when the cylinder is empty, it takes only a few seconds to unscrew the burner from the cylinder and replace it with a completely filled one. The cylinders (ICC-4B240-OBC approved) are available at leading dealers and jobbers.

In actual operation the torch lights instantly without pre-heating and gives a cleaner, hotter, more economical flame that reaches a calculated flame temperature of 3660 degrees F. Fully loaded, the torch weighs less than 2½ lbs. It is compact, light weight, easy to handle and completely portable, with no hose connections or heavy tanks to drag around and the manufacturer claims the unit requires no maintenance. The Bernz LP Gas Torch will burn in any position, including upside down and enables the operator to work anywhere, on ladders or in hard-to-get-at places.

The torch operates most efficiently on Propane fuel. One tank, "cartridge refill," of fuel will economically operate the torch for many hours, depending on the size flame used.

The Bernz LP Gas Torch has many uses in the telephone industry such as: Light brazing, equipment installations, wiring junction or other type boxes, splicing any gauge wire, preheating of light metal and many other uses. Further information may be obtained by writing the manufacturer, The Otto Bernz Company, Inc., 280 Lyell Ave., Rochester 6, New York.



During its recent convention in Houston, Texas, The Petroleum Industry Electrical Association elected the following officers for the coming year. Reading left to right: W. H. Massey, Interstate Oil Pipe Line Co., Shreveport, La., secretary and treasurer; V. J. Sittel, Stanolind Pipe Line Co., Tulsa, president, and A. L. Stegner, Tennessee Gas Transmission Co., Houston, vice president.

Howard Housley Elected V. P. of Petroleum Groups

Members of the Petroleum Industry Electrical Association and the Petroleum Electric Supply association elected officers for the coming year at the recent joint annual convention meeting at the Shamrock, Houston, Texas.

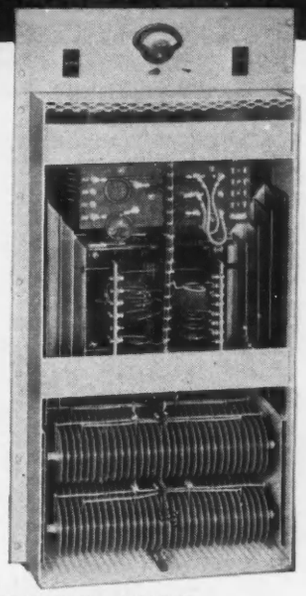
V. J. Sittel, Stanolind Pipe Line Company, Tulsa, was elected president of the P.I.E.A., succeeding R. M. Slough, Ohio Oil Company, Findlay, Ohio.

A. L. Stegner, Tennessee Gas Transmission Company, Houston, was named vice-president of the group and W. H. Massey, Interstate Oil Pipe Line Company, Shreveport, was elected secretary-treasurer.

New members of the association's

The Petroleum Electric Supply Association, which is an organization of the suppliers that serve the PIEA group, recently elected the following officers. (left to right): E. N. Jolliff, Crouse-Hinds Co., Dallas, secretary-treasurer; D. C. Mullen, Nelson Electric Supply Co. Tulsa, chairman of the board; M. L. Kennard, Gulf Coast Electric Co., Houston, president; H. L. Housley, Automatic Electric Sales Corp., Dallas, vice president.

FLOTROL
THE *All-New* BATTERY CHARGER



IT REGULATES
IT COMPENSATES

Holds Battery Voltage Constant Within ±1% With No Moving Parts and Without Using Tubes, Motors, Relays, D. C. Stabilizers or D. C. Controlled Reactors.

Assures Continuous and Substantial Power Savings By Low Stand-By Losses Combined With Higher Overall Efficiency. For Details and Prices See Your Local Distributor.

ORDER BY MODEL NUMBER

FLOTROL CONSTANT VOLTAGE CHARGERS

MODEL	60 C. INPUT	RATING
24A	1Ø	1.0 amp. 24V.
75A	1Ø	3.0 amp. 24V.
150A	1Ø	6.0 amp. 24V.
300A	1Ø	12.0 amp. 24V.
600A	1Ø	24.0 amp. 24V.
1250A	3Ø	50.0 amp. 24V.
2500A	3Ø	100.0 amp. 24V.
*150D	1Ø	6 amp. 24V.
		3 amp. 50V.
*300D	1Ø	12 amp. 24V.
		6 amp. 50V.
75B	1Ø	1.5 amp. 50V.
150B	1Ø	3 amp. 50V.
300B	1Ø	6 amp. 50V.
600B	1Ø	12 amp. 50V.
1200B	1Ø	24 amp. 50V.
1250B	3Ø	25 amp. 50V.
2500B	3Ø	50 amp. 50V.
3750B	3Ø	75 amp. 50V.
5000B	3Ø	100 amp. 50V.
10KB	3Ø	200 amp. 50V.

*Dual Range Chargers

LORAIN PRODUCTS CORPORATION
DEPT. L, 1122 F ST., LORAIN, O.

FLOTROL SUB-CYCLE

board are H. G. Pegues, United Gas Pipe Line Company, Shreveport, and A. F. Harrel, Continental Pipe Line Company, Ponca City, Okla.

The Petroleum Electric Supply Association elected M. L. Kennard, Gulf Coast Electric Company, Houston, president to succeed C. C. Mullen, Nelson Electric Supply Company, Tulsa.

Howard Housley, Automatic Electric Sales, Dallas, is the new vice-president, and E. N. Jolliff, Crouse-Hinds, Dallas, is secretary-treasurer.

Both associations selected Dallas as their next convention site.

General Telephone System Advances I. B. Jackson

I. B. Jackson has been appointed chief engineer of General Telephone System's operating companies in Indiana, Michigan, and Kentucky. Mr. Jackson succeeds H. E. Hussey, who on March 22 was elected president of Indiana Associated Telephone Corp.

Prior to his appointment as Chief Engineer, Mr. Jackson was general plant engineer for the same companies where he had charge of all outside plant engineering, special equipment applications, and transmission.

Mr. Jackson is a native of Logansport, Indiana. After receiving his Electrical Engineering degree from Purdue University in 1925, Mr. Jackson joined the Engineering Department of Indiana Bell Telephone Co. and worked in Indianapolis, South Bend, Marion, Kokomo, and Evansville until 1928 when he became a consulting engineer and contractor.

From 1930 to 1945, when he joined his present associates, Mr. Jackson was employed in the plant and chief engineering departments of the Wisconsin Telephone Co. at Milwaukee, Wisconsin.

Millers Lease Hydro, Oklahoma Exchange

Mr. and Mrs. Elmer Miller have leased the Hydro (Okla.) Telephone Exchange and are in active charge, Mr. Miller assuming full managership.

T. S. Gary Elected Pres. Of Armed Forces Communications Assoc.

At the annual convention of the Armed Forces Communications Association, held in New York on May 12, Theodore S. Gary, vice president and director of Associated Telephone & Telegraph Company, one of the principal units of the Gary Group of telephone manufacturing and operating companies, was elected president of the association, succeeding Frederick R. Lack, vice president of Western Electric Company. Mr. Gary, who is affiliated as officer or director with various companies in the Gary Group, has long been active in the work of Armed Forces Communications Association, and until his recent election served as first vice president of the Association in charge of chapters.

THEODORE S. GARY

About 400 A.F.C.A. members and guests attended the convention, the principal key note of which was a program for expansion of membership and activities and for implementing closer cooperation between the armed forces and industries in the communications and electronics fields.

Discussion of these topics was led by Mr. Gary; by retiring president Lack, who emphasized the importance of the Armed Forces Communications Association to various aspects of national preparedness, including such problems as civilian defense planning; and by Col. George Dixon, executive secretary of the Association, who is spearheading the drive for increased membership and expansion of activities in the interest of national defense planning.

Speakers at the annual banquet, at which Col. T. H. Mitchell, executive vice president of RCA Communications, acted as toastmaster, included Major General K. B. Lawton, Deputy Chief Signal Officer; Major General F. L. Ankenbrandt, Director of Air Force Communications; Rear Admi-

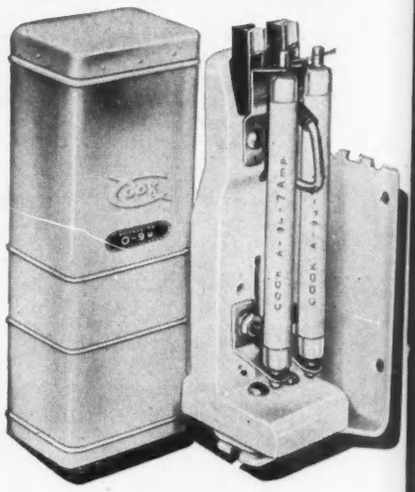
(Please turn to page 70)

STROMB

outdoors or indoors..

rely on Cook type "O-9u"

sub-station protectors



The Cook O-9u Protector is equipped with A-9u 7 amp. lavite fuses and lightning arresters mounted on a heavy moisture-resistant porcelain base, and enclosed by a weather-tight zinc hood. This protector meets all Underwriters requirements and is approved by the Underwriters' Laboratories.

Mfd. by Cook Electric Co.

STROMBERG-C

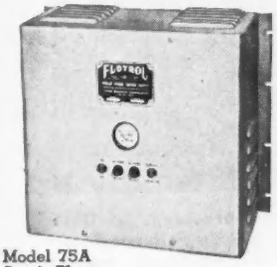
STROMBERG Telephone CARLSON

TELEPHONES, SWITCHBOARDS • SOUND EQUIPM

MBERG-CARLSON recommends...

flotrol battery charger

the dependable partner of the famous Sub-Cycle



Model 75A
Single Phase
3 Amp. 24 Volts

FLOTROL
PARTNERS IN DEPENDABILITY
SUB-CYCLE

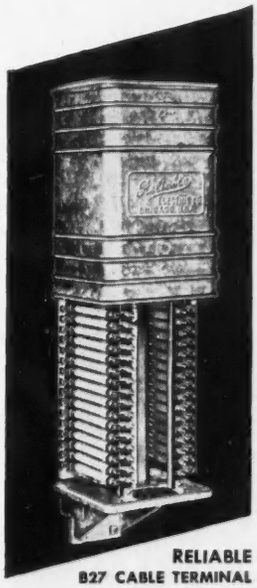
FLOTROL is an automatic, constant-voltage battery charger without moving parts. It keeps battery fully charged at all times, responds instantly to load requirements, works while your battery rests! A full line of models for every need.

FREE! Bulletin 137. Write for your copy of this illustrated booklet on FLOTROL.

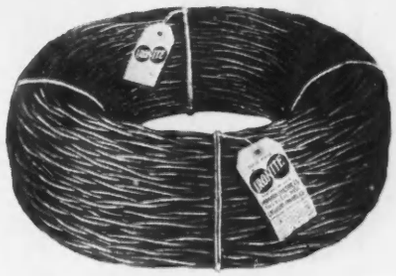
a product of actual field study

The Reliable B27 Protected Cable Terminal has resulted from basically sound engineering, supported by actual field experience. It places all connections within convenient reach of the lineman without necessity of removing fuses or reaching around the terminal—also a decided advantage in inspecting.

Detachable mounting bracket permits one-man installation. Ground connection is made directly to ground strip, reducing possibility of high resistance ground Reliable Self-cleaning Sawtooth Discharge Blocks are standard—insuring dissipation of static discharges without danger of unnecessarily grounding the line.



RELIABLE
B27 CABLE TERMINAL



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DROP WIRE

The old reliable iron conductor drop wire with up-to-date improvements.

Conductor is special formula iron that has *both* strength and conductivity. Zinc sealed by "Flozinc" process—full perfect protection.

A new extra-flexible rubber insulation—holds tight to conductor.

A new weatherproof braid of long staple cotton and mineral fiber, saturated with stearine pitch and mica dust. U.R.C. specifications.

Altogether a fine drop wire—especially for rural installations.

Available in parallel or twisted pair.

Packed in approx. 1000 ft. coils in heavy carton.

Made by PARAGON Electric Co.

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INSTALLATION SERVICE

Porcelain Products insulators for the telephone industry are made to guarantee top quality in insulation and top performance on your telephone installations. A complete and diversified line with each item especially engineered and produced to exacting specifications for telephone service.

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UNIQUE
HEAVY-DUTY UTILITY
KEROSENE FURNACE

Melts 50 lbs. of solder in 10 minutes.
Scraper cleans orifice safely, automatically.

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giving full information on Unique's complete line of
TELEPHONE MAINTENANCE EQUIPMENT

UNIQUE MFG. CO., INC., Est. 1921
224 W. Walton St., Chicago 10, Ill.

Civic and company officials watch as Clare E. Williams, president of Ohio Associated Telephone Co., cuts over the Marion, Ohio, Exchange to Federal Step-by-Step Dial Switching. At the cutover (left to right): Mr. Williams; Mayor Harold F. Robinson of Marion; Hugh E. Webster, Secretary of the Marion Chamber of Commerce; Harry S. Fair, general plant superintendent of the Marion exchange; Dr. Frederick T. Merchant, president of the Marion Chamber of Commerce, and E. C. Kimball, division commercial manager of the Ohio Associated Telephone Co. The Marion cutover comprised 5,100 lines and 10,200 terminals of Step-by-Step equipment produced by Federal Telephone & Radio Corporation.

ral John R. Redman, Chief of Naval Communications; Captain D. E. McKay, Chief of Coast Guard Communications; and Major General W. H. Harrison, president of International Telephone and Telegraph Company.

Other A.F.C.A. officers elected at the Annual Meeting were first vice president, W. W. Watts, vice president of RCA Victor; second vice president, Rear Admiral E. E. Stone, until recently Chief of Naval Communications; third vice president, J. R. Cunningham, of United Air Lines; fourth vice president, C. O. Bickelhaupt, vice president and secretary of A. T. & T., and fifth vice president, D. R. Hull, formerly of the Bureau of Ships and now assistant vice president of Raytheon Manufacturing Company.

Step-By-Step Dial System Cut-Over At Marion, Ohio

Ohio Associated Telephone Company's new Marion, Ohio, central office was placed in service at 6:00 A.M., April 16, with 5,100 lines and 10,200 terminals of new step-by-step equipment, replacing old dial equipment. The new system was produced by Federal Telephone & Radio Corp., manufacturing associate of International Telephone & Telegraph Corp.

Associated with the conversion at Marion is the installation of three Federal Community Step-by-Step sub-exchanges, one in each of the towns of Waldo, Green Camp and Morral. These exchanges comprise 150 lines and 200 terminals, 140 lines and 200 terminals, and 130 lines and 200 terminals, respectively. They are designed to provide small communities with dependable, unattended service.

In addition to regular step-by-step equipment the Marion installation includes an official PABX, a toll train, and intertoll equipment which will be used in the national toll dialing plan. Complete testing facilities are provided by a 2-position local test panel, a 2-position toll test panel and service observation equipment.

New Splices and Deadends Eliminate Looping

Designed for strength and economy is a new line of automatic type splices and deadends for 5/16" and 3/8" steel strand messenger, static, and guy wires. *Strandlink* and *Strandvise* are the identifying names.

Reliable Electric Co., Chicago, the manufacturer, claims that their holding power surpasses the ultimate strength of standard steel strand, ir-

Four miles out on Hamden Road

A flat tire on a dark road far from town . . . a light in a window...the ready assistance of a telephone. Help arrives and trouble vanishes.

• • •

In back of the "Number Please" of the operator—or the invitation of the dial tone—there is a dramatic story of continuing *research,* of skillful *manufacture* and dependable *operation* written by America's telephone industry.

Western Electric's part in the story is to manufacture the kind of telephone equipment which helps to make this reliable service possible.

Western Electric

TELEPHONE APPARATUS AND CABLE

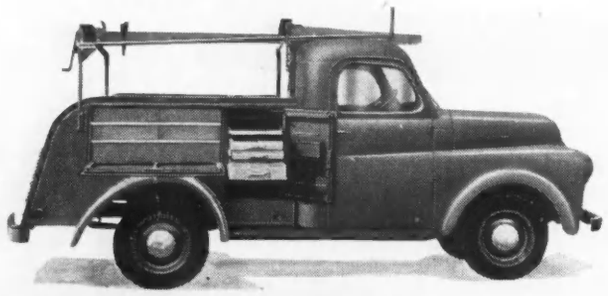
YORK-HOOVER

Bodies are BETTER

SERVICE Investments

Model MCW-115

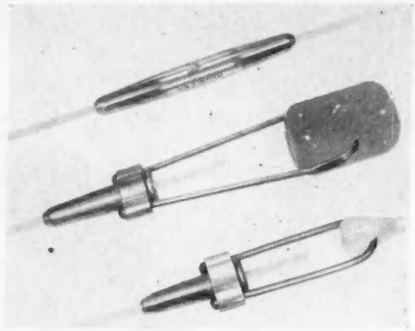
LINE CONSTRUCTION BODY A tough, fully equipped body that will do, economically, all the jobs required in line construction and maintenance work. Model MCW-115 is an investment in *better service* that will earn *regular dividends* for you.



Model 4978

LIGHT DUTY SERVICE BODY Designed for installation on a standard ½ ton chassis. All material and tools for light duty work are conveniently located—in logical sequence and available for daily inventory. Write for Bulletin 927 today!

YORK, **YORK-HOOVER BODY DIVISION CORPORATION** PENNA



Reliable Electric's new automatic type splices and deadends.

respective of grade. In addition, claim is made for marked installed cost reduction, steel strand savings and speed of assembly.

Splices are claimed to be made in a matter of seconds. Lashing machines pass this splice with no difficulty. Tension applied with either hoist or block feeds the strand through the Strandvise any desired distance.

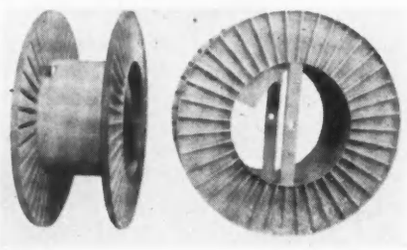
Among the design features are the gripping jaws. They are composed of several hundred case-hardened Zinolyte plated steel teeth, per set, with a protective coating. The housing on both the Strandlink and Strandvise is heat-treated aluminum alloy. The bails are the type 304 stainless steel.

Strandlink and Strandvise are available from stock. The manufacturer welcomes requests for descriptive literature and samples of *Strandlink* and *Strandvise*. Write on business letterhead, with your title. Address Reliable Electric Company, 3145 Carroll Avenue, Chicago 12, Illinois.

New Booklet On Toroidal Reels

The George Evans Corporation, Moline, Illinois, manufacturer of light-weight steel reels, has just published a new booklet which presents the Toroidal Reel as the modern answer to a common problem among

(Please turn to page 74)

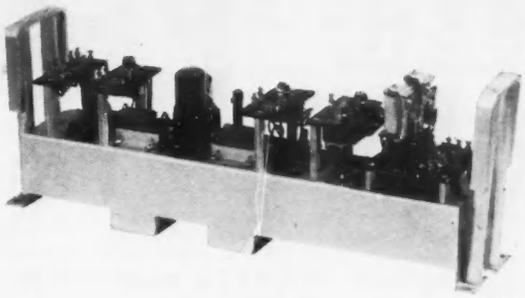


GE-W-Type Toroidal Steel Reels

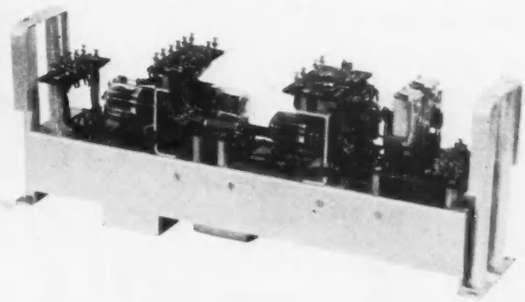
Solve
CIRCUIT *PROBLEMS*
and
PROBLEM *CIRCUITS*

with *Lenkurt*
"PERFORMANCE-ENGINEERED"
CARRIER SYSTEMS

offered by
AUTOMATIC ELECTRIC CO.



Type 440A Pulse Transmitter provides full-duplex operation of up to 18 dialing channels when used with the **Type 444A Pulse Receiver** (below).



Lenkurt Carrier systems provide really economical use of your outside plant by providing as many as 12 talking paths and associated dialing channels over ONE pair of wires!

But suppose you need Automatic dialing channels for your present physical, phantom or carrier circuits? Lenkurt solves that problem too! With the Type 440A Pulse Transmitter and the Type 444A Pulse Receiver (shown above) you can gain up to 18 two-way dialing channels on one carrier voice channel. These dialing channels will be substantially unaffected by heavy power exposures since lines are relatively noise-free at carrier frequencies. And they'll eliminate erratic pulsing often caused by earth currents on ground-return dialing legs. Thus, Lenkurt Carrier provides the most modern, most versatile method of gaining dependable, low cost dialing channels—so good they meet all requirements for inter-toll dialing.

Whether you need voice channels or dialing channels, OR BOTH, use Lenkurt "Performance-Engineered" Carrier, available from Automatic Electric. Just put your problem in our hands.

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FULL LENGTH TREATED *NORTHERN* WHITE CEDAR

P & H Treatment insures against Sapwood deterioration and termites.

Uniform results of Penta treatment assured by laboratory control.

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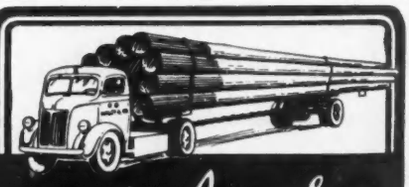

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shippers and users of electric, telephone and power cable.

This "Report on Reels" spells out the success of a natural economic change from the use of wood to steel —as demonstrated throughout 11 years' field experience by Western Electric Company. It provides some interesting data on comparative delivery costs and contains an "Economy Guide in Placing Cable Orders", in which the unique design of the Toroidal Reel plays an important part.

The company has a limited supply of these booklets which it shall gladly furnish on request. Copy may be obtained by addressing The George Evans Corporation, Sales Office, 208 South La Salle Street, Chicago 4, Illinois.

J. L. Taylor Appointed Edwards Sales Manager

Edwards Co., Inc., Norwalk, Conn., manufacturers of electrical signaling and communication equipment, has announced the appointment of John L. Taylor as sales manager.

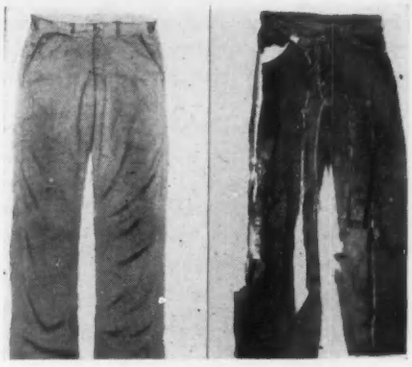
Mr. Taylor joined the Edwards organization in 1924 in New York City. For the past 14 years he has been located in Chicago, where he served as district manager and manager of the Central Division.

Chem-Wear Announces New Work Garments

Extensive plant tests show that savings as high as $100 a year per man can be realized by using industrial work garments made with Union Carbide's "Vinyon" N yarn, according to Chem-Wear Corporation, manufacturers of the clothing. Chem-Wear work trousers used by operators in acid plants have outlasted wool and cotton trousers as much as ten to one.

Industrial clothing made from "Vinyon" N yarn has been found to have an unequalled degree of resistance to destructive chemicals at concentrations widely used in industry. Resistance of the new work clothing to chemicals is inherent in the fiber; the fabric is not treated. Although not fire-proof, Chem-Wear is fire-resistant and will not support combustion.

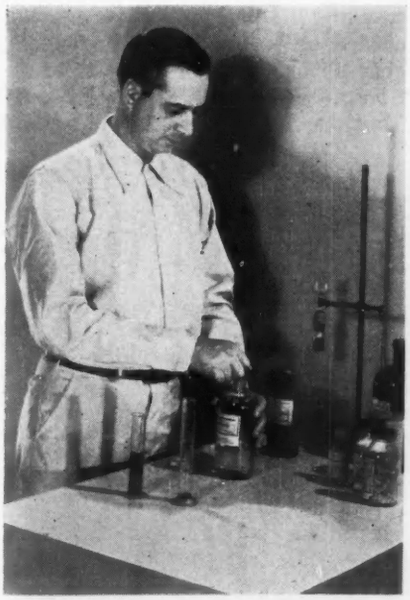
The chemical resistance of fabrics woven with "Vinyon" N yarn was demonstrated in a recent series of tests conducted by an independent laboratory. Samples of fabric were immersed in 26 chemical reagents for 20 hours. The fabrics were conditioned for 4 hours at 65 per cent



Right, cotton trousers used one week in heavy metal chloride service, washed once, completely disintegrated. Left, trousers made from "Vinyon" N yarn used over three months in the same service with regular weekly washings, still in use.

relative humidity and 70°F. before testing. Tested by the strip method, each sample was stripped to 1 inch or 76 ends in the warp and 24 picks in the filling. After treatment, each was broken in a tensile testing machine. Shrinkage, deterioration, and changes in physical appearance of 68 samples were determined. Results at various temperatures and concentrations showed no shrinkage and no appreciable change in pliability and hand even after the 20-hour immersion in such reagents as concentrated hydrofluoric acid, 30% nitric acid (80°C.), 85% phosphoric acid (100°C.), 70% sulfuric acid (50°C.), and 50% sodium hydroxide (100°C.).

Chem-Wear clothing has withstood



The manufacturer claims Chem-Wear shirt and trousers are resistant to 95 per cent of the destructive chemicals used in industry. Woven from "Vinyon" N yarn, the fabric is flame resistant, durable, and comfortable to wear.

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FOR *All* TELEPHONE REQUIREMENTS

LONG LIFE

Neoprene Jacketed
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Weatherproof Braided Drop and Bridle
Interior - Tree - Ground - Switchboard -
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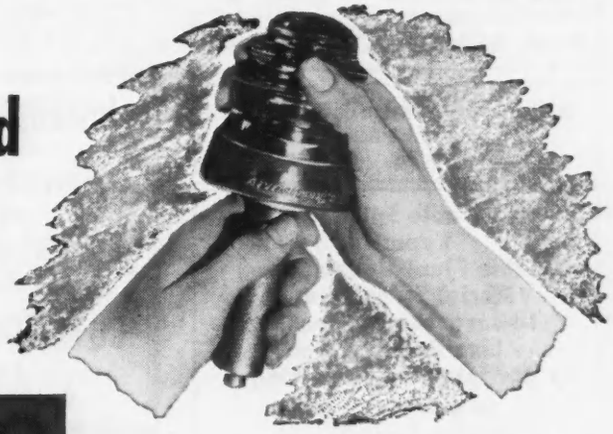
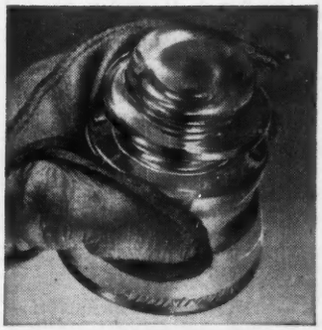
Milltown, New Jersey **Telephone: Milltown 8-0030**

Pre-tested for fit





Armstrong's No. 1

Each of Armstrong's Glass Insulators is factory-tested to make sure it will screw down smoothly on any standard pin.

Made from Armstrong's industrial glass, they safely carry the weight of long spans. In fact, they are strong enough to withstand loads that bend standard metal pins.

See your distributor for samples or write Armstrong Cork Co., Industrial Div., Millville, N. J. Available for export.

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for communications . . . for power

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Complete Outside Engineering, Construction, Maintenance and Planning
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FOR the CORRECT installation of any type of central office equipment. We have competent experienced workmen available at prices you can afford to pay.
JOE C. VANDINE
Telephone Installation Services
Louisville, Kentucky

more than 65 hours of continuous commercial laundering in the highest caustic soap concentrations used in launderies.

Coveralls, laboratory coats, matched shirts and trousers, jackets, and bib overalls made with "Vinyon" N yarn in all conventional sizes are now available from Chem-Wear Corporation, 740 Broadway, New York 3, N. Y.

C. J. Backstrand Heads Armstrong Cork

The Board of Directors of Armstrong Cork recently elected C. J. Backstrand, president and H. W. Prentis, Jr., chairman of the board. Mr. Prentis retired as president after serving 16 years in that capacity. Kenneth O. Bates was re-elected vice-president and designated executive vice-president.

C. Dudley Armstrong was re-elected vice-president and secretary; Joseph C. Feagley, general manager of the Glass & Closure Division, was re-elected vice-president; C. F. Hawker was re-elected vice-president and continues in charge of manufacture; C. N. Painter, general manager of the Floor Division, was re-elected vice-president; H. R. Peck, general manager of the Building Materials Division, was re-elected vice-president; F. E. Stevens, general manager of the Industrial Division, was re-elected vice-president; Keith Powlison was re-elected vice-president and controller; M. J. Warnock, formerly treasurer, was elected vice-president and treasurer. Other officers were re-elected as follows: J. J. Fitzpatrick, general manager of foreign operations; Assistant Secretary; W. D. Martz, assistant secretary and assist-

H. W. PRENTIS, Jr.

C. J. BACKSTRAND

ant treasurer; John M. Adams, assistant secretary, and Walter F. Kaufman, assistant secretary.

Mr. Backstrand, a native of Los Angeles, joined the Armstrong organization as a student salesman in 1921. Rising through a succession of sales positions, he was named general manager of the Floor Division in 1933. He was elected a director of the company in 1935 and a Vice-President in 1938. He has been First Vice-President since 1945. He is 52 years old.

Mr. Prentis, a native of St. Louis, is a former president of the National Association of Manufacturers and is widely known for his interest in governmental, economic, and social questions. He joined Armstrong in 1907 as an assistant to the manager of the Insulation Division. Four years later he became the company's first

KENNETH O. BATES

since 1926...

CONSTRUCTION COSTS

CAN BE REDUCED WITH THESE TIME PROVEN MONEY SAVERS

New STEWART TEST SET

Complete with finder coil, head band and strap $58.00

STEWART DETECTO METER

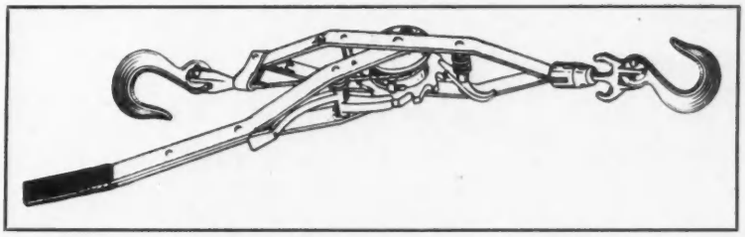
0 to 10,000 w. and 0 to 1½ v. scale $13.75

1. ANKOSEAL CABLE
With that lightweight tough Polyvinyl jacket; each conductor in water proof plastic insulation.
11-16-26 pr. in stock
All sizes and gauges available

2. KEARNEY LAY-CIT GRIPS
Especially for Ankoseal Cable ..... $26.00 per C

3. DRIVE HOOKS $5.31 per C

4. BURIAL WIRE
17/2 Parallel, Syn. Rubber
2500' Reel $24.85



5. MAASDAM POW'R PULL
High tensile alloys—capacity 1500 lbs. weight 6 lbs. Non-kink Airplane cable, a tool for many uses $14.75

6. INTERIOR WIRE
Br. plastic coded 22/2 Tw. Pr. ..... $7.25 M
22/3 Tw. Tr. ..... $10.90 M

7. LINE WIRE—GALV.
No. 12 "85" one half mile coils $11.58

QUANTITY DISCOUNTS

Telephone Equipment Rebuilt like "New."

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President-Manager

TELEPHONE REPAIR & SUPPLY COMPANY
1760 Lunt Ave. • Chicago 26, Illinois

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if you haven't received your copy of the 1950 Composite Catalog & Buyer's Directory. It has been placed in the post-office but the recent curtailment of postal service might impede prompt delivery.

Telephone Engineer & Management
COMPOSITE CATALOG & BUYERS' DIRECTORY
FEATURING "THE TELEPHONE PLAN BOOK"
1950
15th Edition
BIGGER and BETTER Than Ever!
KEEP on your desk for READY REFERENCE

featuring

"The Telephone Plan Book"

In addition to presenting to buyers of telephone supplies and equipment a complete where-to-buy-it directory the 1950 issue features "The Telephone Plan Book."

A new up-to-date manual on construction of a modern telephone plant. Reviewers of this manual are enthusiastic over the simple, easy to understand style the author presents, illustrates and explains each problem.

One section of the book covers "Standard construction and installation practices," and illustrates correct procedures for—(1) Reinforcing pole brackets at corners, (2) Crossarm and hardware dimensions, (3) Use of taller poles over driveways, (4) Crossarm assembly on poles, (5) Sidearm construction, (6) Lead-to-height guy ratios, (7) Correct location of guys, and many other standard practices.

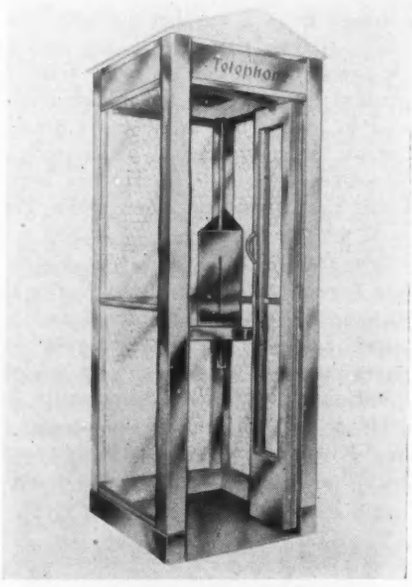
Make-it-a-habit . . . *Keep your own individual copy of the* 1950 *Composite Catalog & Buyers' Directory on your desk at all times as a ready reference.*

advertising manager. In 1920 he was appointed General Sales Manager of the Floor Division. In 1926 he became the first vice-president of the company and in 1934 he was elected president.

Mr. Bates, who was born in Minnesota 53 years ago, joined Armstrong in 1921 as a student salesman in the Floor Division. After serving in a number of sales positions, he was named general manager of the Floor Division and a vice-president of the company in 1942. He was elected to the board of directors in 1943 and since 1945 he has served as vice-president attached to the president's office.

Sherron Outdoor Booths On New Jersey Highways

You can now travel New Jersey highways and stop off along the way to make telephone calls in smartly styled stainless steel telephone booths, manufactured by the Sherron Metal-



Sherron Outdoor Booth

lic Corp., Brooklyn, N. Y. These new booths are the most recent expression of the pioneering efforts of the Bell Telephone Company to provide continuously better service.

The manufacturer claims no other outdoor booths were ever like these. Stainless steel and thick wire glass merge in a shining assurance of security and comfort. The motorist may enter the new stainless steel booth and know that he is safe from intrusion, and at the same time be fully aware of everything going on around him on the outside. The New York Telephone Company is installing the booths on various Long Island parkways.

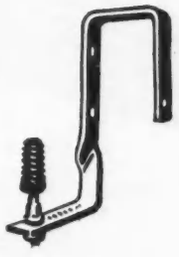
GraybaR RECOMMENDS

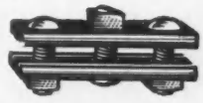
Crapo wire and strand

HTL-135, a telephone line wire of extra-high tensile strength, is extensively used in new construction. Spans of 450 feet in medium loading mean savings due to fewer pole structures. Crapo galvanized strand combines the strength of steel with the weather-resistance of rustproof zinc. Graybar can furnish Crapo wire or strand for every purpose.

Hubbard hardware

Hubbard transposition brackets, house brackets, crossarm braces, machine bolts, lag screws, guy clamps, ground rods, expanding and screw-type anchors all help simplify your construction problems and insure long life of your pole lines. You're *sure* when you "hang the load on Hubbard hardware," stocked by Graybar.





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Graybar, pioneer supplier of pole-line items to the telephone industry, has always selected only proven products of leading manufacturers. Your local Graybar Representative is anxious to make your order his personal responsibility – he'll see that you get prompt deliveries. In addition, the experience of a Graybar Telephone Specialist is always available to help you solve any unusual technical problems. Besides telephone supplies, Graybar can provide everything you need for wiring, ventilation or lighting your building – and "intercom" systems to speed your office work. *Graybar Electric Company, Inc. Executive offices: Graybar Building, New York 17, N. Y.*

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Specialists in
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Kellogg Desk Stands, No. 118 or No. 34 type, complete with cords, like new, at $5.00 each.
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Transmitter, Kellogg No. 22, at $1.25 each.

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For a Quarter of a Century Rebuilders of the Independents' Telephone Equipment.

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FOR SALE: Magneto 5 Bar 1600 compact wall phones with rebuilt transmitter and receiver. Serviceable condition and tested before shipment. $10.00, F.O.B., Chicago. Write or call Clark-Jarvis Telephone Equipment Co., 7367-69 North Clark St., Chicago 26, Ill.

FOR SALE: Magneto telephones—400 Stromberg-Carlson No. 896 wall type, 4 and 5 bar generators, very good condition telephones. Inquire Citizens Telephone Company, Decatur, Indiana.

Here is an Amazing BARGAIN!

PREFORMED, GALVANIZED, EXTRA HIGH STRENGTH

MESSENGER STRAND

1¢ PER FOOT

MARKET VALUE APPR. 5¢ PER FT.

APPR. 1/4 INCH DIAMETER
.240 SIX STRAND CONSTRUCTION
COTTON CENTER
6300 LBS. BREAKING STRENGTH

REELS CONTAIN 7100 & 8000 FT.
SOLD IN FULL REELS ONLY
NO CHARGE FOR REELS

IMMEDIATE SHIPMENT FROM OUR WAREHOUSE

ALL CABLE IS NEW, AND GUARANTEED AS REPRESENTED

NOTE: We have sold millions of feet of this MESSENGER STRAND to Independent Telephone Companies all over America. Many of our customers have re-ordered numerous times. One customer bought 1,176,000 ft. of our STRAND.

Price is F.O.B. Los Angeles, Calif.

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Valuations and Original Cost
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Have several attractive openings for engineers and draftsmen with experience on central office equipment. Consideration will be given to men without manufacturing-engineering experience who are familiar with dial system principles and operation. College education desirable but not essential. Applications treated in full confidence. Address Box 8665 c/o Telephone Engineer.

FOR SALE: 340 station magneto exchange in northeast Nebraska, in rich farming country. Modern house, 2 lots, garages, service truck (new), equipment to manage exchange. Switching 84 mutual stations. Connections with Northwestern Bell. Bancroft Telephone Company, Bancroft, Neb.

FOR SALE: P. B. X.—Stromberg-Carlson No. 104C cordless P. B. X. 3 trunks, 10 lines, 5 connectors. Price $125.00 f.o.b. Citizens Telephone Co., Decatur, Indiana.

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W. M. BASHLIN CO. **Grove City 1, Pa.**

Cable-Splicers
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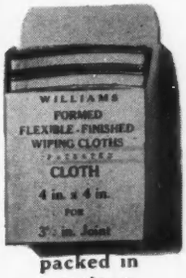

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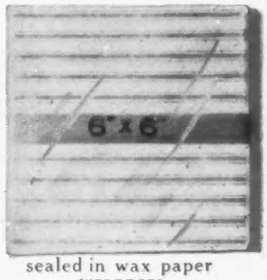
Formed-flexible finishing cloths (Patented); Flat finishing cloths; Catch cloths; Crotch cloths and Up-right joint catch cloths. Made of world-prize HERRINGBONE TICKING or imported English MOLESKIN. Write for literature and prices from your jobber or from us.



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WE MADE ANOTHER SENSATIONAL PURCHASE!

NOW WE CAN SHIP FIELD TELEPHONE WIRE FROM TWO LOCATIONS

If You Are Located in the Eastern Area — WE WILL SHIP FROM **PENNSYLVANIA** — WE WILL SHIP FROM **OGDEN, UTAH** — If You Are Located in the Western Area

"This is a tremendous freight saving factor for you!"

- **U. S. SIGNAL CORPS. - TWISTED PAIRS**
- **W110B-2**

FIELD TELEPHONE WIRE

INSULATED — 2 CONDUCTOR
SEVEN STRAND (3 Copper — 4 Steel)
Manufactured by Anaconda, General, and Others

YOUR COST

GOVERNMENT ACQUISITION COST PER MILE REEL $86.80 PER MILE

WEIGHT PER REEL — APPROX. 160 LBS., CUBE 3.0 FEET

MINIMUM ORDERS ACCEPTABLE — 5 REELS

$10.00 PER MILE REEL
F. O. B. OGDEN, UTAH OR F. O. B. PENNSYLVANIA

If You Are a Rated Firm, We Extend to You Our Regular Terms: Net 10 E.O.M. If Not, Please Send Check With Your Order

DO NOT DELAY — ACT NOW! — ORDER TODAY

SUBJECT TO STOCK ON HAND

IF YOUR REQUIREMENTS CALL FOR QUANITY PURCHASES
The Following Special Prices Shall Prevail, When Ordering at One Time, in the Following Quantities:

25 MILE REELS of FIELD TELEPHONE WIRE ..... YOUR COST $9.00 per MILE
50 MILE REELS of FIELD TELEPHONE WIRE ..... YOUR COST 8.50 per MILE
100 MILE REELS of FIELD TELEPHONE WIRE ..... YOUR COST 8.00 per MILE

SPECIAL PRICES for CARLOAD and LARGER ORDERS FURNISHED UPON REQUEST
ALL PRICES QUOTED ARE NET CASH F.O.B.—EITHER OGDEN, UTAH, OR PENNSYLVANIA

FOR YOUR FIELD TELEPHONE WIRE REQUIREMENTS — CALL, WRITE OR WIRE BEN BAIL OR ARNOLD BAIL

Sugarman Equipment Co.
EXECUTIVE OFFICES IN THE SUGARMAN BLOCK
J. J. SUGARMAN CO.
FOUNDED 1906
420 EAST EIGHTH STREET • LOS ANGELES, CALIF.
TELEPHONE TUcker 3131

ADDITIONAL Information on New Products or Service and Supplies of any Advertiser listed in this section may be promptly obtained by filling out the handy request for more information reproduced on the opposite page. All items are numbered. Check number of items on which more information is desired and send to Telephone Engineer Publications. Kindly mention Telephone Engineer Publications when contacting advertiser direct.

the New Products Showcase

New Products & Supplies of Practical Interest

Faster and lower cost service pipe installations are expected from a newly developed "Hydrauger," earth boring tool. According to E. D. Rogers, general manager of Hydrauger Corporation, Ltd., this new 8-inch wide 150 pound machine will be known as the "Scooter Model" Hydrauger.

Unique features of this fast earth boring machine are a full length sled mount and an air driven cable winch which pulls the entire machine along as it advances the boring bit forward into the ground. Up to 70 feet of drill stem can be laid out ahead of the machine and pulled into the earth formation by means of the winch and cable. Rapid boring of both two and two and a half inch holes is claimed by means of rock, hardpan or clay type bits.

Like other Hydrauger earth boring tools, both air and water are used for operating the machine. This new model is the first, however, to have a built-in pressure water pump for 110 p.s.i. noncloggine water circulation. The machine can work successfully, it is said, in positions too cramped for any other type of pipe installing machine.

The "Scooter Model" Hydrauger uses 1 3/16 inch hollow boring bars in sectional lengths up to ten feet. Drill stem assembly is withdrawn from the bore under air winch power and the service pipe can be drawn into the hole as the stem is withdrawn.—Check New Product. 237.

ACETYLENE EQUIPMENT — "Prest-O-Lite" No. 1 Lineman's outfit helps you do a better job, quicker & easier. The Linde Air Products Co., 30 E. 42nd St., New York 17, N. Y. —[ADV 1]

ADVERTISING, Directories—General Telephone Directory Co., 604 Pine Ave., Long Beach, Cal., and 185 N. Wabash, Chicago, Ill.—[ADV. 2]

ANCHORS, Plastic Expanding, Universal. All Purpose—Mount in any Material, Holub Industries, Inc., 424 DeKalb Ave., Sycamore, Ill.—[ADV. 3]

ANCHORS & WIRE CONNECTORS—Matthews Scrulix Anchors, Matthews Telephone Wire Connectors. Write for bulletins. W. N. Matthews Corp., St. Louis 16, Mo.—[ADV. 4]

AUGER—The "Alaska Frost Auger." Free trial on your own machines. Henning Electric Motor Co., P. O. Box 786, Fargo, N. D.—[ADV. 5]

BATTERIES, Dry Cell—The Ray-O-Vac Company, 2317 Winnebago St., Madison, Wisc.—[ADV. 6]

BATTERY—WATER UNITS Demineralizers For Tap Water—A. E. Tomkin & Co., 1828 Columbia Rd., N.W., Washington 9, D. C.—[ADV. 7]

BELTS — CLIMBERS — COMPLETE LINEMEN'S EQUIPMENT, W. M. Bashlin Co., Bashlin Bldg., Grove City 1, Pa.—[ADV. 8]

BLOCKS, AERIAL CABLE—"Tug-O-Wheel" aerial cable blocks for safe and speedy installation of all types of aerial cable. Tug-O-Wheel Products Co., Ballston Spa, N. Y.—[ADV. 9]

BOOTHS—Acoustic Telephone—Sherron Metallic Corp., 1201 Flushing Ave., Brooklyn 6, N. Y.—[ADV. 10]

BOOTHS—Churchill Cabinet Co., 2119 Churchill St., Chicago 47, Ill.—[ADV. 11]

CABLE, All Plastic, Aerial, Duct, Direct Burial, PBX, Switchboard.—The Ansonia Electrical Co., Ansonia, Conn.—[ADV. 12]

CABLE SPINNING—The Cable Spinning Equipment Company, 432 Crane St., Topeka, Kans.—[ADV. 13]

CARRIER EQUIPMENT—Adler Telephone & Telegraph Carrier Equipment has been standard for twenty years in the Independent Field. Mfd. only by Southern Electric & Transmission Co., 3127 Holmes St., Dallas, Texas.—[ADV. 14]

CONNECTORS, CABLE—Cannon Electric Development Co., 3209 Humboldt St., Los Angeles 31, Calif.—[ADV. 15]

CORDS, Instrument and Operators—Commermercial Cord & Supply Co., 26 Main St., Clifton Springs, N. Y.—[ADV. 16]

CORDS, Switchboard & Telephone—Runzel Cord & Wire Co., 4727-31 Montrose Ave., Chicago 41, Ill.—[ADV. 17]

CROSS ARMS—American Cross-Arm, Inc., 141 W. Jackson Boulevard, Chicago, Ill.—[ADV. 18]

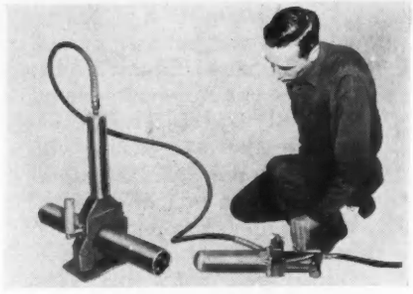
DERRICKS—Set more poles with aluminum derricks. Aluminum Co. of America, 1407C Gulf Bldg., Pittsburgh 19, Pa.—[ADV. 19]

"EARTH BORING MACHINES" Sterling Model "A"—Precision Engineered and Hydraulic Controlled. Sterling Engineering & Mfg. Co., 173 Gilligan St., Wilkes-Barre, Pa.—[ADV. 20]

ELECTRIC HOT WATER HEATERS, Thermostatically controlled for any hot water heater, Vulcan Electric Co., Danvers 17, Mass.—[ADV. 21]

ENGINEERING, Construction—Neale Construction Company, 432 Crane St., Topeka, Kans.—[ADV. 22]

FLASH LIGHTS. Carpenter Mfg. Co., 222 Master-Light Bldg., Boston 45, Somerville, Mass.—[ADV. 23]



Manco Mfg. Co., Bradley, Ill., has announced development of a new portable, hydraulic cutter for cutting insulated electric cable and armored cable up to 3½" O. D. This new Manco development, called the "Guillotine" model 30-D is said to be the only portable hydraulic cutter made capable of cutting large diameter material. It is available with a choice of three portable pump units. The "Guillotine" illustrated above is shown with the Manco air-hydraulic pump assembly that operates off any source of compressed air supplying 100 lbs. pressure. It is also available with an electric hydraulic pump assembly for 110 volt or 220 volt operation. These two pump units are recommended for cable salvage work. In addition, the basic "Guillotine" cutting unit can be supplied with a separate hand pump assembly for work in the field.—Check New Product 238.

FLOOR DUCT—The Versatile Floor Duct, Ask your jobber or write, Winders & Geist, Inc., P.O. Box 633, Lincoln, Neb.—[ADV. 24]

GENERATORS—A. C. power anywhere with "Katolight" plants and generators. Kato Engineering Co., 131 Maxfield Ave., Mankato, Minn.—[ADV. 25]

FURNACES—For quickly and economically melting lead and paraffin—Mutual Liquid Gas Equipment Co., Inc., 3600 W. Imperial Highway, Los Angeles, Calif.—[ADV. 26]

GLOVES—The Saranac Buckskin Linemen's Gauntlet made especially for linemen. Write for information, Saranac Glove Co., Littleton, New Hampshire.—[ADV. 27]

INSULATORS, Porcelain—Porcelain Products, Inc., Box 300, Findlay, Ohio.—[ADV. 28]

JACKS, for lifting Cable Reels, Pulling Poles and Maintenance Work. Duff-Norton Mfg. Co., 1710 Preble Ave., Pittsburgh 12, Pa.—[ADV. 31]

LANTERNS, WARNING—"Little Air Pilot," the general purpose warning light. Embury Manufacturing Co., 210 Allen St., Warsaw, N. Y.—[ADV. 29]

LIGHTWEIGHT PULLERS—Coffing Hoist Company, 800 Walters St., Danville 5, Ill.—[ADV. 30]

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PIPE PUSHERS—Giant Manufacturing Co., South 6th St., at 12th Ave., Council Bluffs, Iowa.—**[ADV. 32]**

PIPE PUSHERS—Greenlee Tool Co., 2136 12 St., Rockford, Ill.—**[ADV. 33]**

PINS & BRACKETS—Mfrs of all sizes of Locust Pins and Oak Brackets , The Locust Pin Co., Inc., Front Royal, Va.—**[ADV. 34]**

PLUGS for the Telephone Industry. Write for Cannon Electric Condensed Catalog. Cannon Electric Co., 3209 Humboldt St., Los Angeles 31, Calif.—**[ADV. 35]**

POLE HOLE DIGGERS—For derrick mounted trucks Tel-E-Lect Products, Inc., 9613 Minnetonka Blvd., Minneapolis 16, Minn.—**[ADV. 36]**

POLES—Cedar poles and Fir cross arms. R. G. Haley & Co., Inc., Spitzer Bldg., Toledo 4, Ohio.—**[ADV. 37]**

POLES, Contract Inspection & Preservative Ground Line Treatment—Osmose Wood Preserving Co., 1443 Bailey Ave., Buffalo 12, N. Y.—**[ADV. 38]**

POLES, Southern Yellow Pine—Colfax Lumber & Creosoting Co., Inc., P.O. Box 23, Pineville, La.—**[ADV. 39]**

POLES, Telephone. "It pays to buy quality" International Creosoting & Construction Company. Galveston—Beaumont—Texarkana.—**[ADV. 40]**

POLES, Creosoted Southern Yellow Pine and Douglas Fir. The Long-Bell Lumber Company, Wood Preserving Div., R. A. Long Bldg., Kansas City, Mo.—**[ADV. 41]**

POLES, Southern Yellow Pine—Taylor Colquitt Company, 290 E. Main St., Spartanburgh, S. C.—**[ADV. 42]**

POLES, Southern Yellow Pine—Texas Creosoting Co., Orange, Texas.—**[ADV. 43]**

POLES—Texas Best pressure-creosoted poles. Lone Star Creosoting Co., P. O. Box 9, Longview, Texas.—**[ADV. 44]**

POLES—Western Red Cedar, Western Larch, Lodgepole Pine. B. J. Carney & Co., Minneapolis 3, Minn. and Spokane 8, Wash.—**[ADV. 45]**

POLES & CROSS ARMS—Creosoted poles and crossarms. Conroe Creosoting Co., Conroe, Texas.—**[ADV. 46]**

POLE LINE HARDWARE—Manufactured and stocked on the Pacific Coast by KORTICK MANFACTURING COMPANY, 345 First St., San Francisco 5, Calif.—**[ADV. 47]**

POWER UNITS—Insure against Power Failure with a "U.S." Stand-by Unit. Write for information. United States Motors Corp., 558 Neb. St., Oshkosh, Wis.—**[ADV. 48]**

PROTECTIVE EQUIPMENT—Reliable Electric Company, 3145 Carroll Avenue, Chicago 12, Ill.—**[ADV. 49]**

IF YOU DO not see a listing in these columns of products or services you are interested in write "Buyers' Directory", 7720 Sheridan Road, Chicago 26, Illinois, for such information. It will be furnished quickly and without charge.

GAS-TITE CABLE TERMINALS—Sub station protectors, main dist. frames; central office protectors; interior junction boxes; lightning arrestors.—Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.—**[ADV. 50]**

PRINTING—Telephone forms. Cullom & Ghertner Co., 600 21st Ave., Nashville 4, Tenn.—**[ADV. 51]**

RADIO—Two-way radio systems. Motorola, 4545 W. Augusta Blvd., Chicago 51, Ill.—**[ADV. 52]**

REBUILT TELEPHONE EQUIPMENT—USED EQUIPMENT BOUGHT AND SOLD—Independent Telephone Repair Co., 1432 W. 15th St., Chicago 8, Ill.—**[ADV. 53]**

REBUILT TELEPHONE & SWITCHBOARDS—Telephone Repair & Supply Company, 1760 Lunt Avenue, Chicago 2, Ill.—**[ADV. 54]**

SAFETY FOOTING—"Hydra-Lizer" gives safety footings for all conditions; adjust ladder to terrain. Anderson Products Co., P. O. Box 691, Tulare, Calif.—**[ADV. 55]**

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SUPPLIES—Use the Suttle Catalog of "Rural Telephone Supplies." Suttle Equipment Co., Lawrenceville, Ill.—**[ADV. 57]**

TELERING—Telephone ringing by frequency conversion. Voltage range for all purposes, central office and private branch exchanges. Telkor, Box 186, Elyria, Ohio.—**[ADV. 58]**

SWITCHBOARDS, TELEPHONES, ETC.—Automatic Electric Co., 1033 W. Van Buren St., Chicago, Ill.—**[ADV. 59]**

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TRUCKS—Heavy Duty Engineered To Save You Money"—International Harvester Co., Chicago, Ill.—**[ADV. 66]**

UNDERGROUND TOOLS, Specialties and equipment for conduit and cable construction work. B. S. Barnard Co., 122 Lafayette St., New York 13—**[ADV. 67]**

WIRE DROP & INSIDE—Jackets of neoprene, rubber or plastic. Lowell Insulated Wire Co., Lowell, Mass.—**[ADV. 68]**

WIRE, FIELD TELEPHONE—Sugarman Equipment Co., 420 E. 8th St., Los Angeles Calif.—**[ADV. 69]**

WIRE, Insulated—DATED DROP WIRE—Neoprene or Weatherproof—Alphaduct Wire & Cable Co., Milltown, N. J.—**[ADV. 70]**

WIRE, Insulated Drop and Bronze or Copperweld—Acorn Insulated Wire Co., Inc., 36 Freeman St., Pawtucket, R. I.—**[ADV. 71]**

WIRE, Insulated Drop, Genuine Ironite—Paragon Electric Co., Two Rivers, Wis.—**[ADV. 72]**

WIRE, Insulated Drop, HT Bronze, Paraprene or Braid Insulation—Paragon Electric Co., Two Rivers, Wisc.—**[ADV. 73]**

WIRE, TELEPHONE, for all inside and outside uses—Whitney Blake Company, New Haven 14, Conn.—**[ADV. 74]**

WIRE CUTTERS—H. K. Porter, Inc., 74 Foley, Somerville, Mass.—**[ADV. 75]**

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Union Carbide & Carbon Announces Appointment

The appointment of A. S. Johnson as general manager of the National Carbon Division of Union Carbide & Carbon Corporation was announced recently.

Mr. Johnson joined the organization in 1928 at the Edgewater Plant in Cleveland. He went to China in

A. S. JOHNSON

1933 to assist in Plant Operations in that country, returning to the United States in 1939 as Assistant Superintendent of the organization's Fostoria, Ohio Plant. In March, 1942, he became Superintendent of the Clarksburg, West Virginia Plant and later that year went to Cleveland as District Manager.

In 1944, Mr. Johnson became Assistant to the Vice President in Charge of Production with offices in Cleveland. In 1945 he was transferred to New York to the Foreign Department of the organization and in 1948 was made a Vice President.

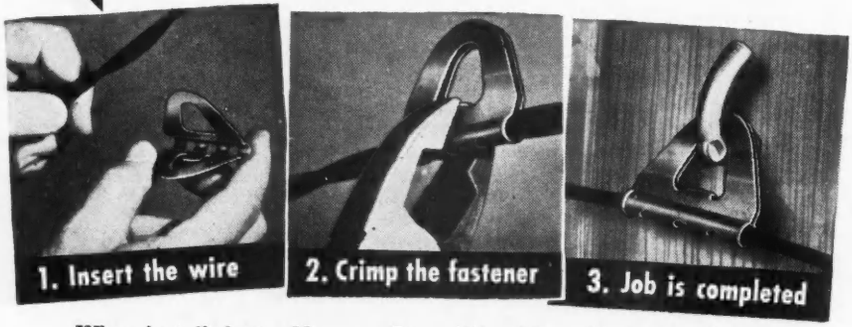
Onan Names New Memphis Distributor

Hiram Hascall, sales manager of D. W. Onan & Sons Inc., Minneapolis, Minn., manufacturers of electric generating equipment, has announced appointment of the Hawkins Equipment Co., Memphis, Tenn., as distributors of Onan products in the Memphis trading area in the states of Tennessee, Kentucky, Arkansas and Missouri.

The Hawkins Equipment Co., is located at 1475 Thomas Street, Memphis, Tenn., and is well-known throughout the Memphis area.

Speed Up Drop Wire Installations with Kearney Drop Wire Clips

Installation is simple and fast — using only a pair of ordinary pliers.



When installed, the Kearney Drop Wire Clip will stay in place. The wire is completely enclosed so that it cannot fall from the clip. It avoids spot loading, too, because it grips the wire over the entire length of the clip.

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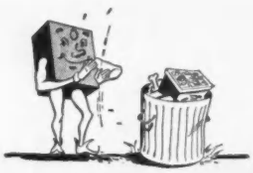

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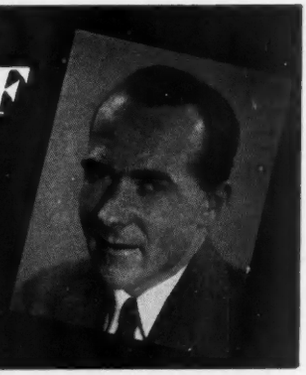
By JOHN G. REYNOLDS
Managing Editor



A Penny Just As Good Say Students . . . Spinning a penny to put in a free telephone call at Harvard Yard pay stations came to an end recently when the New England Telephone & Telegraph Company yanked out yard telephones.

The company said that freshmen discovered last September that they could make calls by flicking a penny into the nickel slot with a key or pencil.

They had been using the system liberally, the telephone company reported. One student admitted he made a free call to Boulder City, Nev., even after the company installed what it considered a fool-proof system.

Skillful students still could spin the penny. The not-so-skillful simply whacked the telephone with a baseball bat and generally got the jackpot through the return slot.

The telephone company decided it was time to pull out the telephones when it found a **tally sheet near one telephone.**

There was a check mark on the sheet for every successfully spun penny.

• • •

Who Owns Telephone Firm? . . . The Northern Cambria (Pa.) Farmers Telephone Company—with a full complement of officers and one full-time employe—has been serving some 130 subscribers dutifully for 44 years. Recently the Bell Telephone Company expressed interest in buying the rural line. There's just one hitch—**nobody knows who owns it.**

More than a hundred persons originally invested in the firm. After enough money was raised and the line began operation the stockholders—most of whom were subscribers—were content to leave the affairs of the company up to the officers.

In 1928 a fire destroyed all of the firm's records—including names and addresses of the now annonymous owners.

The Cambria county court has asked all holders of stocks and bonds to appear at a hearing. Those who show up and prove they are stockholders will be declared sole owners of the firm.

Then, the harried officers hope, they can sell the Northern Cambria Farmers Telephone Company.

• • •

Index Shows New High For Way We Live . . . Maybe every American isn't a millionaire, as Europeans seem to think, but as a people we're pretty well off at that. Just consider these facts about U. S. families which the Federal Reserve Board reported recently:

More than half (51%), of the 50,400,000 families own one or more automobiles. Nearly half (45%) own their own homes or farms. And nearly one in six (16%) owns other real estate.

Moreover, in other forms of savings, the picture is even brighter. For instance, the Federal Reserve Board found that:

Three out of four families (77%), hold life insurance policies.

Seven out of ten (71%), have bank accounts or Government Savings Bonds.

This isn't a perfect picture, but it shows we are making good progress. It looks even more encouraging when we remember that only a few generations back only the wealthy owned homes—and no one had an automobile or an insurance policy.

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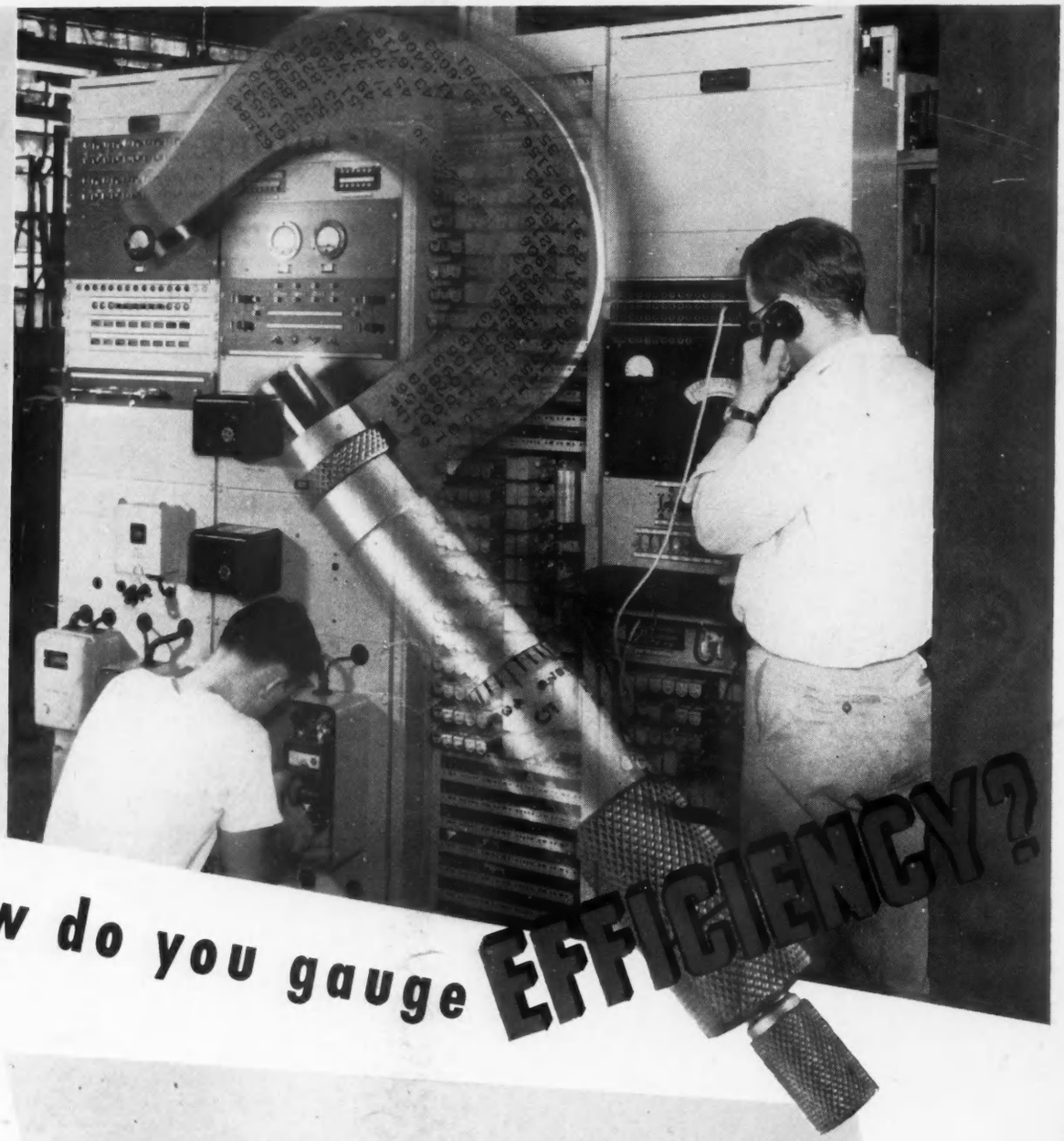

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